User's
Manual

PCAS
PC Analyzer Server Software

GC8000
GC1000 MarkII

IM 11B06B01-01E

vigilantplant®

YOKOGAWA
Yokogawa Electric Corporation

IM 11B06B01-01E
6th Edition

Introduction

Thank you for purchasing the PCAS PC Analyzer Server Software.

The PC analyzer server is a computer system designed to collect data from multiple GC8000 analyzers and other analyzers connected to an ANABUS network. This manual describes the basic operation of the analyzer server.

Intended Readers

The description of the installation procedure assumes that readers have a basic knowledge of the hardware and software required for installing the maintenance terminal.

The same applies to descriptions on other procedures that appear later in the manual and descriptions including Windows.

However, Chapter 2 describes basic operating procedures pertaining to Windows so that the reader can perform operations even without a basic knowledge of Windows.

For further details on Windows, refer to the respective manuals.

Information Priority

In addition to this manual, operating procedures and precautions on handling are also described in the help function (on-line manual) of the PCAS PC Analyzer Server and the README.TXT file that is saved during installation. The priority of these information sources is as follows.

(1) README.TXT file
(2) Help function (on-line manual)
(3) User's manual (this manual)

Contents of the Package

The contents of the package are as follows. Check the contents of your package.

- PCAS installation disc (CD-ROM)
- PCAS PC Analyzer Server User's Manual (IM 11B06B01-01E)

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Documentation Conventions

Symbol Marks

Throughout this user's manual, you will find several different types of symbols are used to identify different sections of text. This section describes these icons.

CAUTION

Identifies important information required to understand operations or functions.

TIP

Identifies additional information.

SEE ALSO

Identifies a source to be referred to.

HELP !

Indicates text describing the action to be taken when a message or indication is displayed during an operation.

Keyboard Inscriptions

Keyboard operations are indicated in this manual as shown in the following example.

(Inscription example)

[Shift] + [F1]

(Meaning)

Indicates that the operator must press the [F1] key while pressing the [Shift] key.

Menu Inscriptions

Menu operations are indicated in this manual as shown in the following example.

(Inscription example)

Click on [Connect] in the [System] menu.

(Meaning)

Click on the [System] menu, then click on the [Connect] command.

Drawing Conventions

Some drawings may be partially emphasized, simplified, or omitted, for the convenience of description.

Some screen images depicted in the user's manual may have different display positions or character types (e.g., the upper / lower case). Also note that some of the images contained in this user's manual are display examples.

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PCAS
PC Analyzer Server Software

IM 11B06B01-01E 6th Edition

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Revision Information i

1. Outline of PCAS

This chapter gives an outline of PCAS and explains basic information that needs to be known before beginning operation.

What is an Analyzer Server?

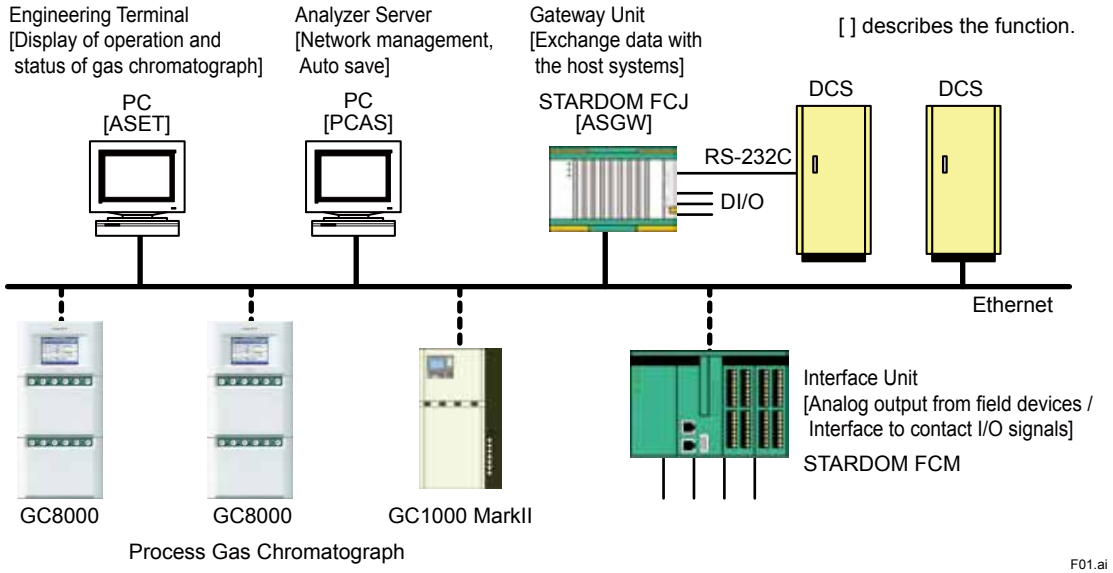
An analyzer server is a system consisting of PC software (PCAS) for managing the network of an analyzer bus and saving the data of GC8000, GC1000 Mark II and analyzer bus system interface unit (ASIU).

Features of the Analyzer Server

The analyzer server makes maintenance of analyzers simple because data such as concentration values, alarms, and chromatographs can be continuously saved for connected analyzers (GC8000, GC1000 Mark II and ASIU)

The data of up to 64 analyzers can be managed on one analyzer server that runs on a general-purpose Windows PC. Furthermore, up to 14 analyzer servers can be operated on the same network.

The analyzer server has functions for monitoring network status and keeping consistency among multiple servers. A highly reliable system can also be built by using a dual redundant network configuration.



Typical System Configuration

Hardware Requirements

The following hardware is required to run PCAS.
Operating environment
PC Specifications
Type: IBM PC compatible

- OS: Microsoft Windows 7 SP1, Windows XP Professional SP3, Windows Server 2008 SP2 (32 bit version only)
  English or Japanese
- CPU: 32 bit - 1 GHz or more
- Memory: 1 GB or more
- Hard disk capacity (for data strorage):
  - GC8000: 3.1 GB per detector
    2.0 GB per SYS
    Example: 5.1 GB for 1 GCM - 1 SYS - 1 detector
    30.6 GB for 6 GCM - 6 SYS - 6 detectors
  - GC1000 Mark II: 3.5 GB per unit
  - ASIU: 1.9 GB per unit
- Display: SVGA (1024 x 768) or more
- Ethernet port: 1 port (100BaseTX or 100 BaseFX)
  2 ports (100BaseTX or 100BaseFX) for redundant configuration
- Other: CD-ROM drive
  DVD-ROM drive for redundant configuration

Software Requirements

PCAS

Model Name	Basic Code	Option Code	Specification
PCAS	••••••••••••••••••	•••••••••••••••••	Software Package
Function	**-A01**	•••••••••••••••••	Standard
Language	**E**	•••••••••••••••••	English
	J	•••••••••••••••••	Japanese
—	**-N**	•••••••••••••••••	Always -N
—	**N**	•••••••••••••••••	Always N
Additional		**/ARC**	ARCNET supported version (only for GC1000 MarkII)

Analyzer server engineering terminal software (ASET) is used for handling data managed by the PCAS. For details on ASET, refer the user's manual for ASET (IM 11B06C01-01E).

Furthermore, when analyzer servers are used in a dual redundant configuration, the following license and media are required.

Software License

License Code	Description	Remark
NT783AJ-LW11A	Duplexed Network Program for FCN/FCJ OPC Server	Required for each PC

Software Media

CD-ROM Code	Description	Remark
NT203AJ-PC11E	Resource configurator	The software media provided for ASGW or ASIU can be used.

Outline of Screens

PCAS has the following screens. For details, refer to chapters 3 to 7.

Status Screen

This screen is for displaying a list of the communication connection status of all registered analyzers.

Maintenance Screen

This screen is for uploading and downloading the parameters of analyzers, changing the communication status of the server, etc.

Builder Screen

This screen is for displaying and configuring parameters required by the system. The storage periods for data can also be set in this screen.

Network Monitoring Screen

This screen is for monitoring the network status of the analyzer bus.

Alarm Screen

This screen is for displaying alarms generated on PCAS. The alarm history can also be displayed.

Explanation of Terms

Server Equalization

This is the process of specifying any two servers (PCAS) when there are multiple servers on the same network and copying and backing up all the information of one server onto the other server.

Primary Server and Secondary Server

The term primary server is used for the server that is the equalization source and the term secondary server is used for the server that is the equalization destination.

Electronic Message

This is the packet used for communication exchange between an analyzer and the server.

Filter

This is a means of displaying only necessary/unnecessary electronic messages in the Network Monitoring screen.

Server Communication Status

This is the term used when indicating communication is permitted or no connection is possible.

Memory Dump

This is the operation of the server acquiring the internal information of an analyzer in binary format.

2. Using PCAS

This chapter describes the procedures that need to be performed to use PCAS. For descriptions on screen operations, refer to the description on each screen in chapter 3.

2.1 Installing PCAS

2.1.1 Installing “Microsoft Visual C++ 2008SP1 Redistributable Package”

Install the “Microsoft Visual C++ 2008SP1 Redistributable Package” Before installing PCAS.

This package is also included in the ASET Install Disk. If you already installed this Package into the computer while the ASET installing, you can skip this procedure.

● Installation Procedure

(1) Insert the install disc into the CD drive. The following dialog box appears Click “Open folder to view files”.

(2) Select the folder “Microsoft Visual C++ 2008SP1 Redistributable Package (x86)”->” for_ English”

(3) Click “vcredist_x86.exe”, then the installer will start.

(4) Install the software according to the screen.

2.1.2 Installation of PC Analyzer Server

This section describes the procedure for installing PC Analyzer Server (PCAS) on your PC system.

When using the PCAS for ARCNET (/ARC), refer to “8.2 Installing PCAS for ARCNET”.

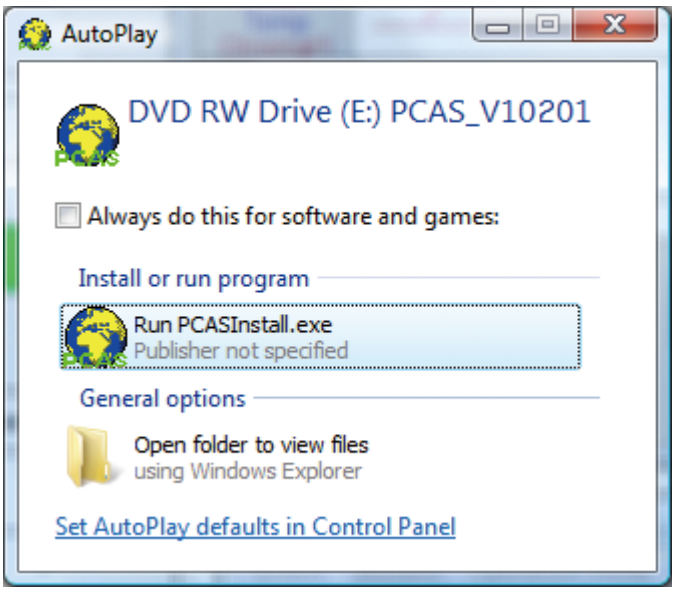
For the PCAS dual redundancy on Windows 7, please make sure disabling UAC (User Account Control) before installing PCAS. Please refer to the following chapter “■ Changing User Accont Control settings”.

■ Installation Procedure

(1) Start Windows.

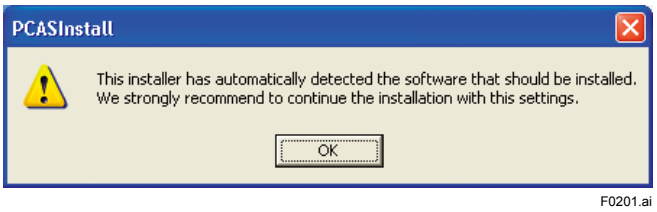
(2) Insert the install disc into the CD drive. The following dialog box appears when the OS of your PC is Windows 7. (It is not appears in any OS's other than Windows 7.)

Click the "Run PCASInstall.exe" item.



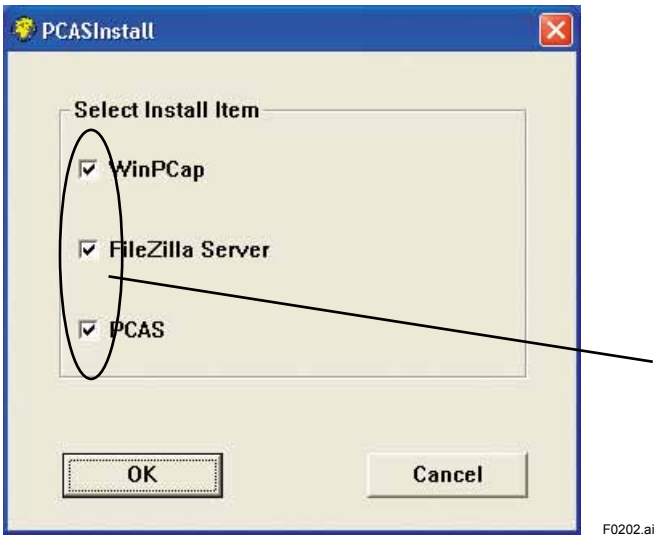
AutoPlay Dialog Box.

(3) The following dialog box appears to notify you that the PC has automatically determined the software that should be installed. Confirm the content of the dialog box and then click the OK button.


PCASInstall
This installer has automatically detected the software that should be installed.
We strongly recommend to continue the installation with this settings.
OK
F0201.ai

PCASInstall Dialog Box.

(4) The PCAS install dialog box appears. Add checkmarks for the items you want to install. Checkmarks are added for all of the “WinPCap,” “FileZilla Server,” and “PCAS” items the first time you install the software. The second and subsequent times, the items with checkmarks added vary depending on the installation state, but checkmarks are added to required items automatically. Click the OK button without changing any of the settings.



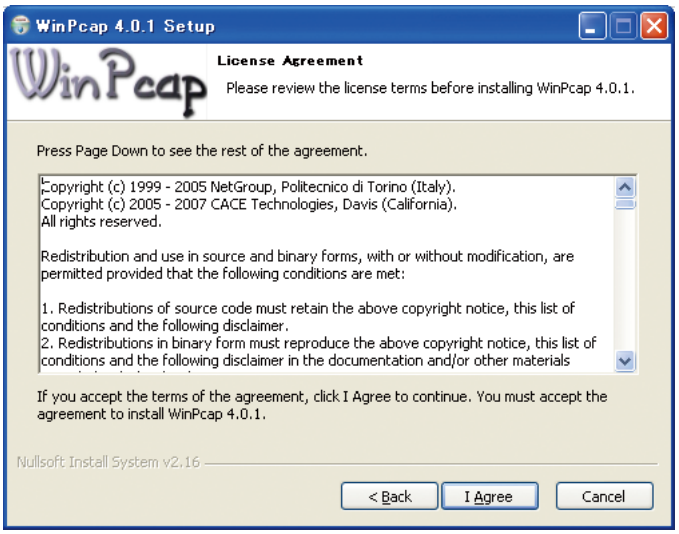
Select Install Item Dialog Box.

The installation procedure for WinPcap 4.0.1 is performed first.

(5) The installation wizard for WinPcap 4.0.1 setup starts and the WinPcap 4.0.1 Installer dialog box appears. To install WinPcap, click the Next button. At this time, it is strongly recommended to exit any other programs that may be running.

To cancel the installation, click the Cancel button. If you click this button, WinPcap 3.0 will not be installed.

(6) When the Next button is clicked in Step (5), the Welcome to the WinPcap 4.0.1 Setup Wizard dialog box appears. Click the Next button, then the License Agreement dialog box appears. Carefully read the terms, and click the I Agree button, if you agree with the terms.


WinPcap 4.0.1 Setup
License Agreement
Please review the license terms before installing WinPcap 4.0.1.
Press Page Down to see the rest of the agreement.
Copyright (c) 1999 - 2005 NetGroup, Politecnico di Torino (Italy).
Copyright (c) 2005 - 2007 CACE Technologies, Davis (California).
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Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:
1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials
If you accept the terms of the agreement, click I Agree to continue. You must accept the agreement to install WinPcap 4.0.1.
Nullsoft Install System v2.16
< Back
I Agree
Cancel

License Agreement Dialog Box

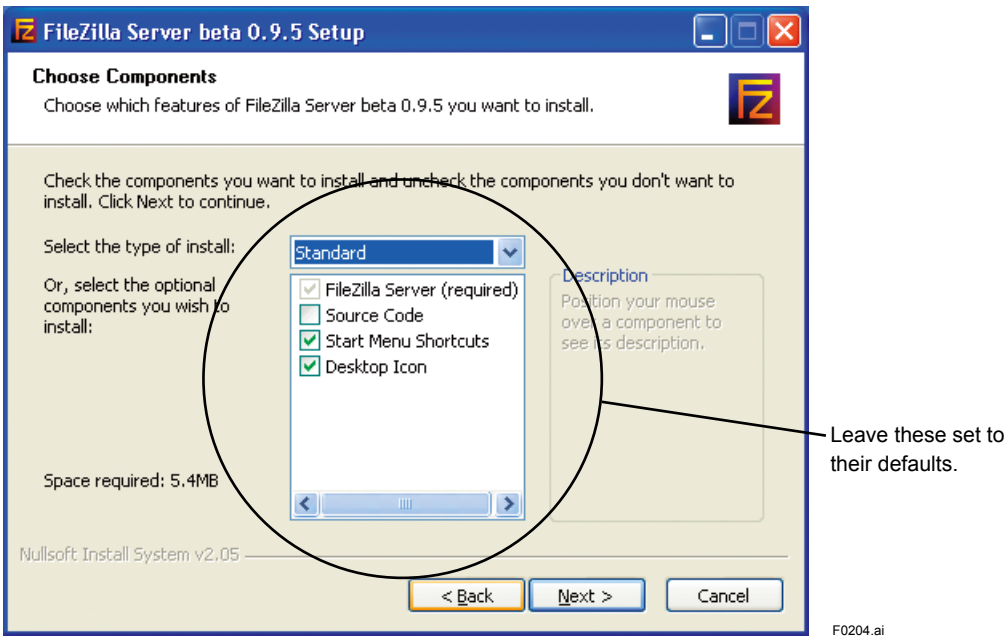
(7) After the agreement, the installation of WinPcap 4.0.1 is begun. After the installation is complete, the Completing dialog box appears. Click the Finish button. The WinPcap 4.0.1 installation is now complete.

The installation procedure for FileZilla Server beta is performed next. The FileZilla Server beta 0.9.5 installation starts automatically after the WinPcap 4.0.1 installation ends.

(8) When the License Agreement dialog box of the FileZilla Server beta 0.9.5 setup appears, read the terms and click the “I Agree” button if you agree with the terms.

(9) If you agreed with the terms in Step (8), the Choose Components dialog box appears. By default, Standard is selected for the combo box and checkmarks are added to the Start Menu Shortcuts and Desktop Icon checkboxes. PCAS will run normally if you leave the settings unchanged.

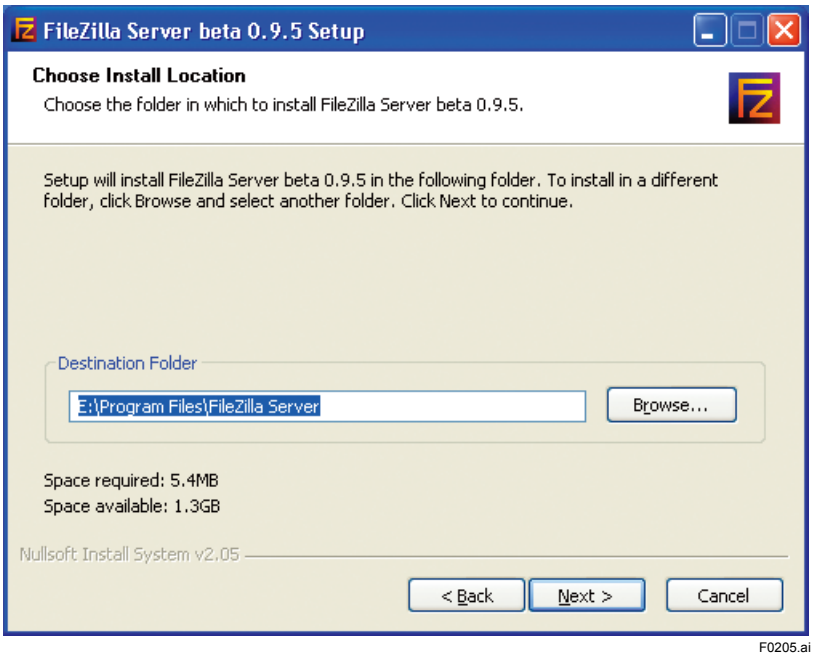
Procedures described later in this user’s manual assume that these settings were left unchanged. Therefore, leave them unchanged and then click the Next button.


FileZilla Server beta 0.9.5 Setup
Choose Components
Choose which features of FileZilla Server beta 0.9.5 you want to install.
Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.
Select the type of install:
Standard
Or, select the optional components you wish to install:
FileZilla Server (required)
Source Code
Start Menu Shortcuts
Desktop Icon
Description
Position your mouse over a component to see its description.
Space required: 5.4MB
Nullsoft Install System v2.05
< Back
Next >
Cancel
Leave these set to their defaults.
F0204.ai

Choose Components Dialog Box

(10) The Choose Install Location dialog box appears. Directly enter the path in the input box of Destination Folder or click the Browse button and specify the installation location in the Choose Folder dialog box that appears.

After you specify an installation location in Destination Folder, click the Next button.

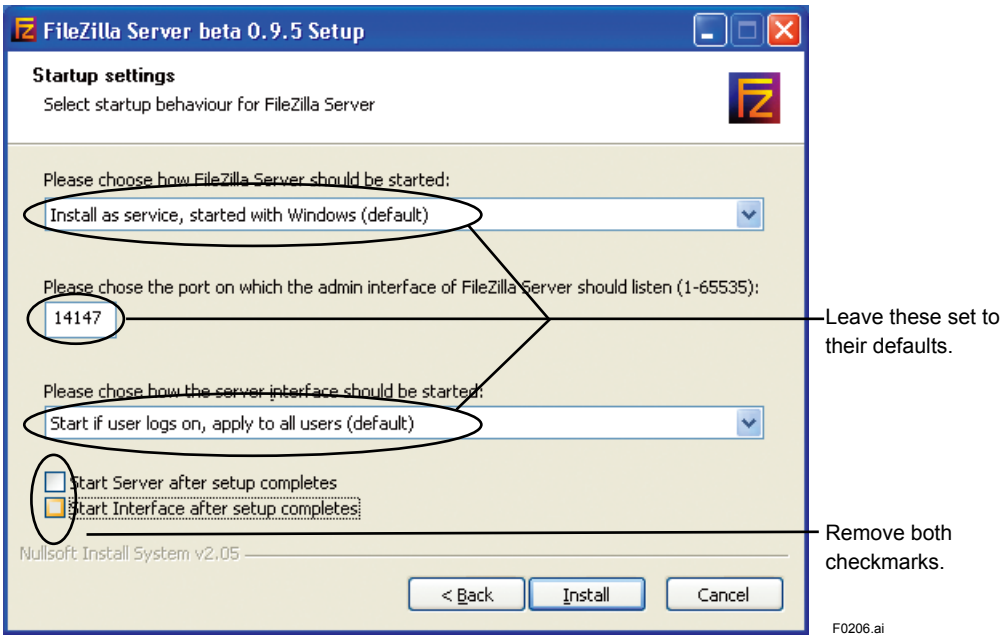

FileZilla Server beta 0.9.5 Setup
Choose Install Location
Choose the folder in which to install FileZilla Server beta 0.9.5.
Setup will install FileZilla Server beta 0.9.5 in the following folder. To install in a different folder, click Browse and select another folder. Click Next to continue.
Destination Folder
E:\Program Files\FileZilla Server
Browse...
Space required: 5.4MB
Space available: 1.3GB
Nullsoft Install System v2.05
< Back
Next >
Cancel
F0205.ai

Choose Install Location Dialog Box

(11) The Startup settings dialog box appears next. This dialog box is for configuring the FileZilla Server startup settings.

The default settings for the combo boxes and input box are “Install as service, started with Windows (default),” “14147,” and “Start if user logs on, apply to all users (default).” These settings for startup of FileZilla Server and the server interface should be left set to their defaults and procedures described later in this user’s manual assume that these settings were left unchanged. Therefore, leave them unchanged.

Furthermore, both checkboxes have a checkmark added by default. These checkboxes set whether to start FileZilla server and the server interface after the installation is complete. Remove these checkmarks and then click the Install button because PCAS will be installed after the FileZilla installation ends.


FileZilla Server beta 0.9.5 Setup
Startup settings
Select startup behaviour for FileZilla Server
Please choose how FileZilla Server should be started:
Install as service, started with Windows (default)
Please chose the port on which the admin interface of FileZilla Server should listen (1-65535):
14147
Please chose how the server interface should be started:
Start if user logs on, apply to all users (default)
Start Server after setup completes
Start Interface after setup completes
Nullsoft Install System v2.05
< Back
Install
Cancel
Leave these set to their defaults.
Remove both checkmarks.
F0206.ai

Startup Settings Dialog Box

(12) The installation screen appears and then the Installation Complete dialog box appears automatically after the installation completes. Click the Close button.

The FileZilla Server beta 0.9.5 installation is now complete.

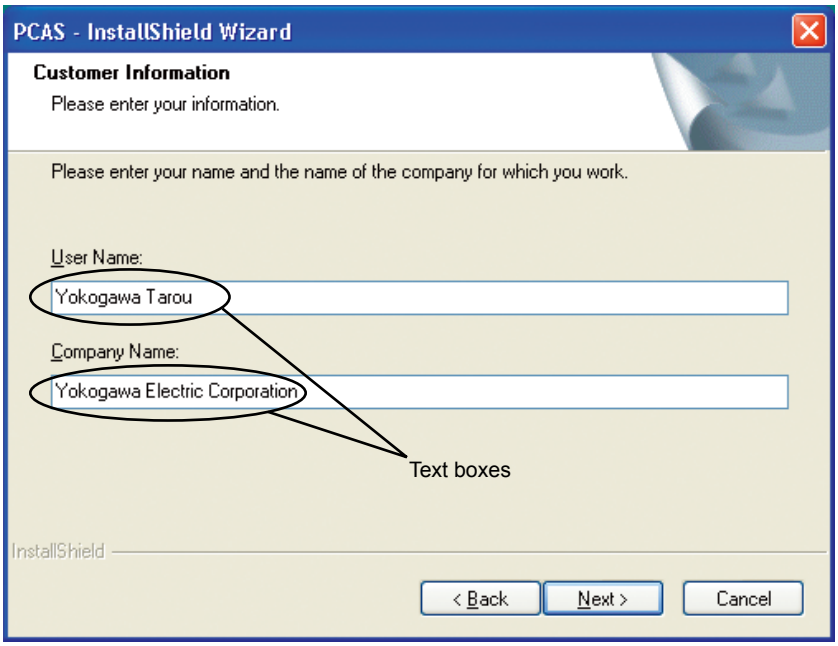
The setup procedure for PCAS is performed next. The PCAS installation starts automatically after the FileZilla Server beta 0.9.5 installation ends.

(13) After the preparation dialog box for the PCAS InstallShield Wizard is displayed, the InstallShield Wizard screen appears.

Click the Next button in the Welcome to PCAS Setup dialog box that appears.

(14) When the License Agreement dialog box appears, carefully read the terms and then add a checkmark to the “Yes, I agree with all the terms of this license agreement” checkbox if you agree with the terms, and then click the Next button.

(15) When the User Information dialog box appears, correctly enter your user name and company name in the text boxes and then click the Next button.

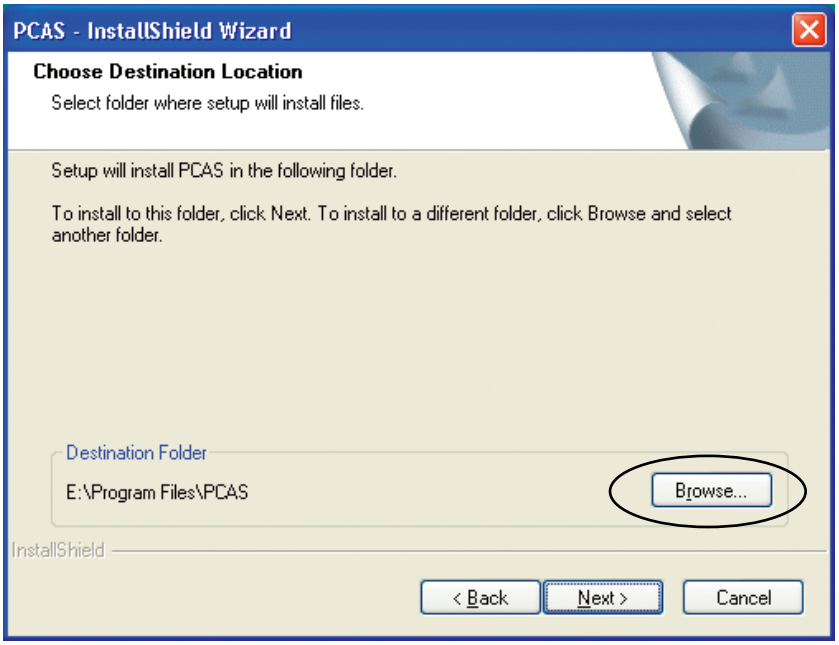


F0208.ai

User Information Dialog Box

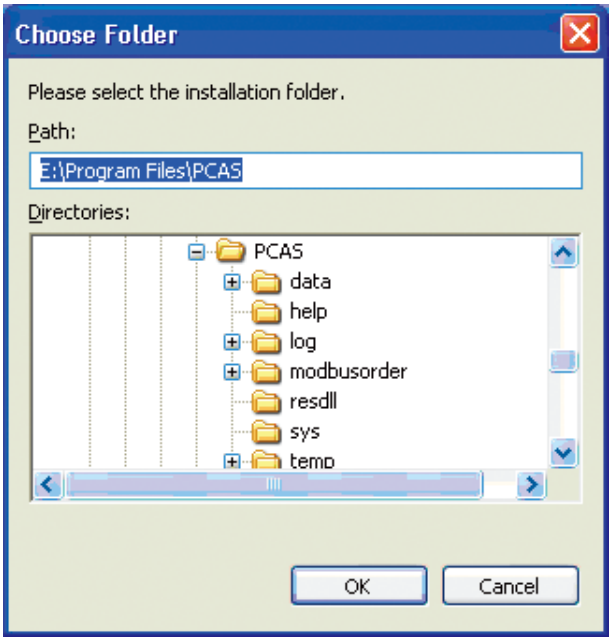
(16) The Choose Install Location dialog box appears next. Click the Browse button and specify the installation location in the Choose Folder dialog box that appears.

After you specify a folder for the installation location, click the Next button.


PCAS - InstallShield Wizard
Choose Destination Location
Select folder where setup will install files.
Setup will install PCAS in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
E:\Program Files\PCAS
Browse...
InstallShield
< Back
Next >
Cancel

F0209.ai

Choose Install Location Dialog Box



F0210.ai

Choose Folder Dialog Box

(17) When the Installation Preparation Complete dialog box appears, click the Install button.

(18) If you are installing the software a second or subsequent time and configuration files already exists, a dialog box appears at the end of the installation to prompt you to select whether to update the files. Click the Yes button to update the files and the No button to not update the files.

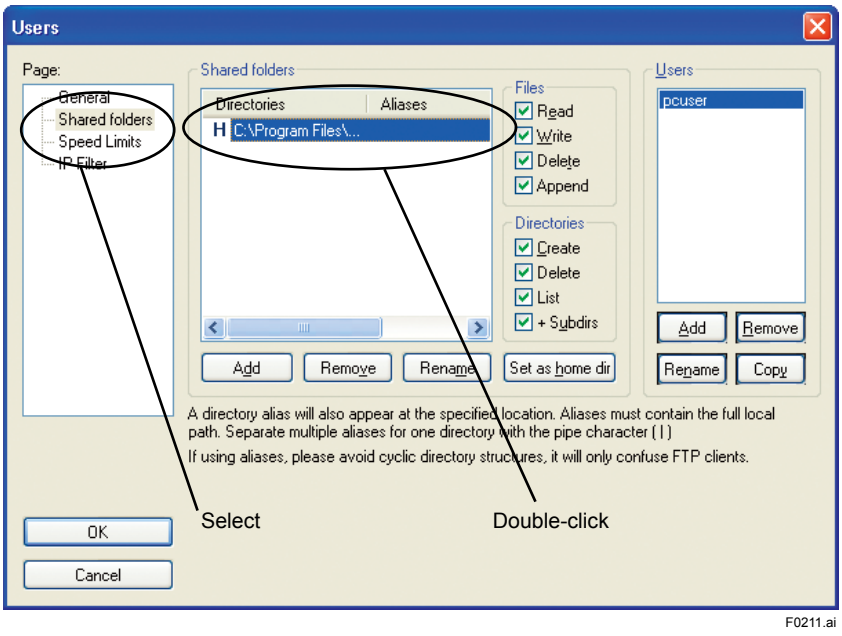
(19) The Setup Status appears and then a Readme file containing the latest information on PC Analyzer Server 1.xx.xx opens automatically when the installation completes. Check the information in the file and then click X in the top right to close the file.

(20) The InstallShield Wizard Complete dialog box appears when you close the Readme file. Add a checkmark to the “Yes, restart the PC now.” checkbox, remove the disc from the CD drive, and click the Complete button. The PC restarts and the installation is complete.

The installation of PCAS is now complete.

Note: If the PCAS installation location folder is changed when the installation is performed a second or subsequent time, be sure to perform the following procedure. If this procedure is not performed, PCAS will not run properly.

(1) Double-click FileZilla Server in the taskbar.
(2) Select Users from the Edit menu of the FileZilla Server window that appears.
(3) Select “Shared folders” in Page of the Users dialog box that opens. Double-click the Directories section (indicated in red in the figure below) of Shared folders. The Choose Folder dialog box appears.



Users Dialog Box

(4) Specify the directory that you newly installed PCAS and then click Ok to close the Choose Folder dialog box. Next, click the OK button in the Users dialog box.
(5) Click the Minimize button in the top right of the FileZilla Server window to make FileZilla Server resident. Be careful not to click the X button for closing the window.

The procedure is now complete.

Changing User Account Control settings

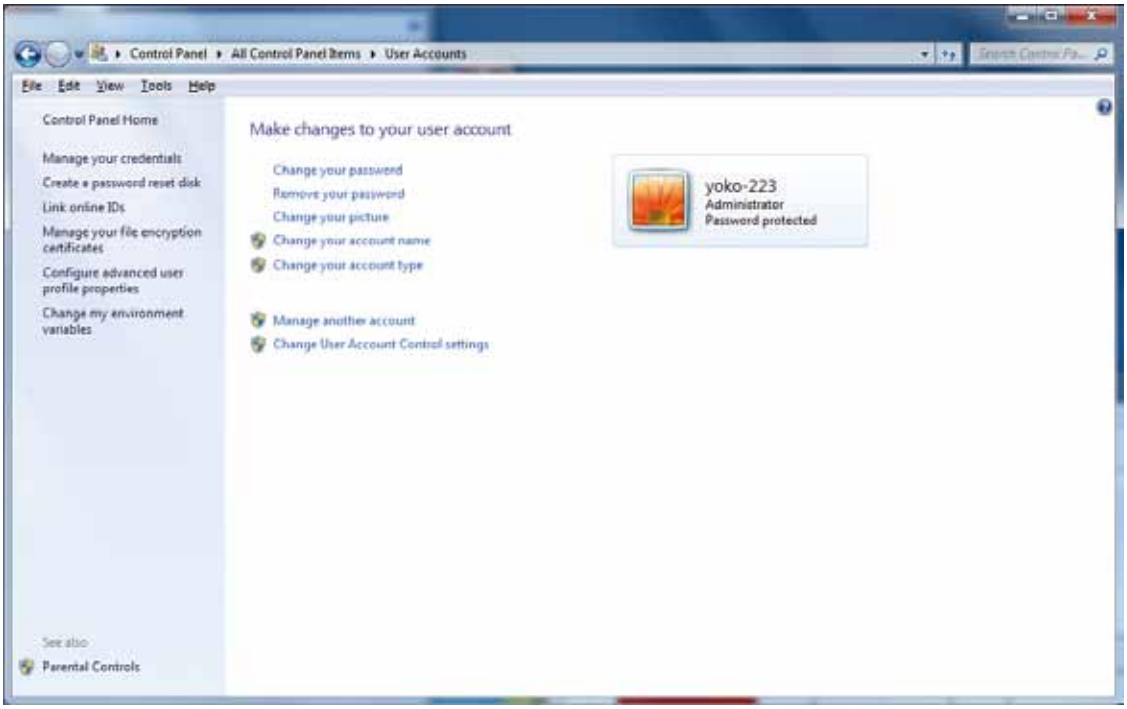
For the PCAS dual redundancy on Windows 7, please make sure changing User Account Control (UAC) to “Never notify” before installing PCAS.

UAC helps prevent unauthorized programs from being installed on the system silently by viruses or malicious software. This feature is normally preferable, but in some cases, it may interfere with system operation and settings, e.g., UAC may block installation of some applications.

UAC can be disabled at the user’s discretion. Yokogawa is not responsible for any problems that may result from disabling UAC.

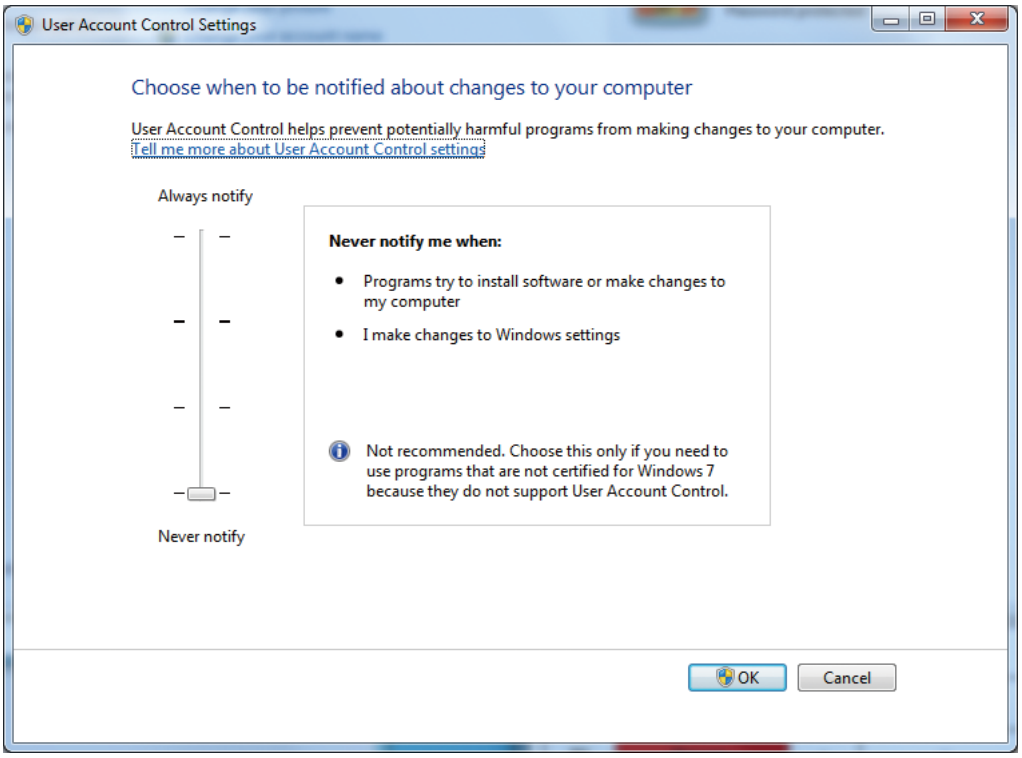
The UAC setting is enabled by default. To disable the setting, you must log on using an administrator account. All the following steps should be done as an administrator account.

(1) Open the Control Panel and then User Accounts.



Click [Change User Account Control settings]. The [Change User Account Control settings] dialog appears.

(2) In the [Choose when to be notified about changes to your computer], side to “Never notify”, and then click [OK].


User Account Control Settings
Choose when to be notified about changes to your computer
User Account Control helps prevent potentially harmful programs from making changes to your computer.
Tell me more about User Account Control settings
Always notify
Never notify
Never notify me when:
Programs try to install software or make changes to my computer
I make changes to Windows settings
Not recommended. Choose this only if you need to use programs that are not certified for Windows 7 because they do not support User Account Control.
OK
Cancel

Changing UAC setting is now complete.

PC Configuration for Power Management

It is recommended that the following items be set and confirmed after installation of PCAS.

NOTE

PCAS may not function properly while the sleep, standby and hibernation settings are enabled. The settings above can be disabled in Windows. The setting procedure is as follows.

for Windows 7

Log on as a user with administrator privileges, click the Start menu, select Control Panel, Hardware and Sound, double-click Power Options to display the Power Options Properties dialog box, and then make sure the following items are set as described below. Note that some of the items described below may not be displayed depending on the configuration of the PC. If an item is not displayed, the function is disabled.

- **Choose what the power button does.**

  When I press the power button: Do nothing

  When I press the sleep button: Do nothing

  When I close the lid: Do nothing
- **Choose what to turn off the display**

  Turn off the display: Never

for Windows XP

Log on as a user with administrator privileges, click the Start menu, select Control Panel, double-click Power Options to display the Power Options Properties dialog box, and then make sure the following items are set as described below. Note that some of the items described below may not be displayed depending on the configuration of the PC. If an item is not displayed, the function is disabled.

- **Power Schemes Tab**

  System standby: Disabled

  System hibernates: Disabled
- **Advanced Tab**

  Some PC keyboards have a sleep button. Disable this key with the following setting in the Power buttons area.

  When pressing the sleep button on my computer: Do nothing
- **Hibernate Tab**

  Enable hibernation: Unselected

for Windows Server 2008

Log on as a user with administrator privileges, click the Start menu, select Control Panel, double-click Power Options to display the Power Options Properties dialog box, and then make sure the following items are set as described below. Note that some of the items described below may not be displayed depending on the configuration of the PC. If an item is not displayed, the function is disabled.

- **System Settings window**

  When I press the power button: Do nothing

  When I press the sleep button: Do nothing

  When I close the lid: Do nothing
- **Edit Plan Settings window**

  Put the computer to sleep: Never

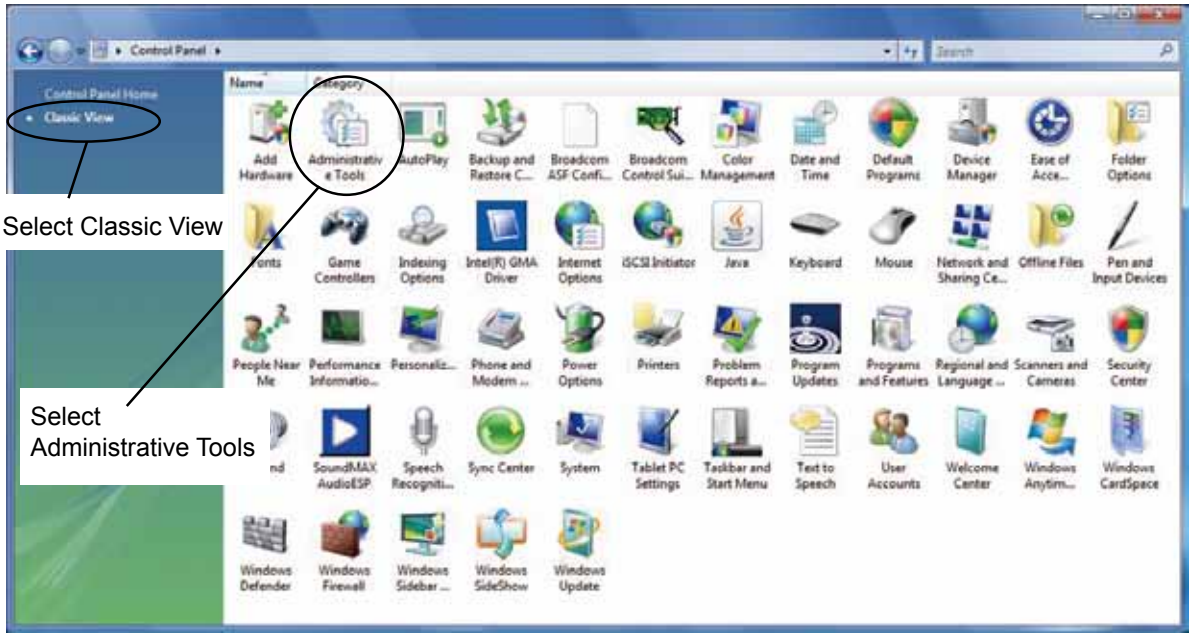
2.1.3 Firewall Settings

The firewall needs to be configured after you install PC Analyzer Server (PCAS). This section describes the procedure for configuring the firewall.

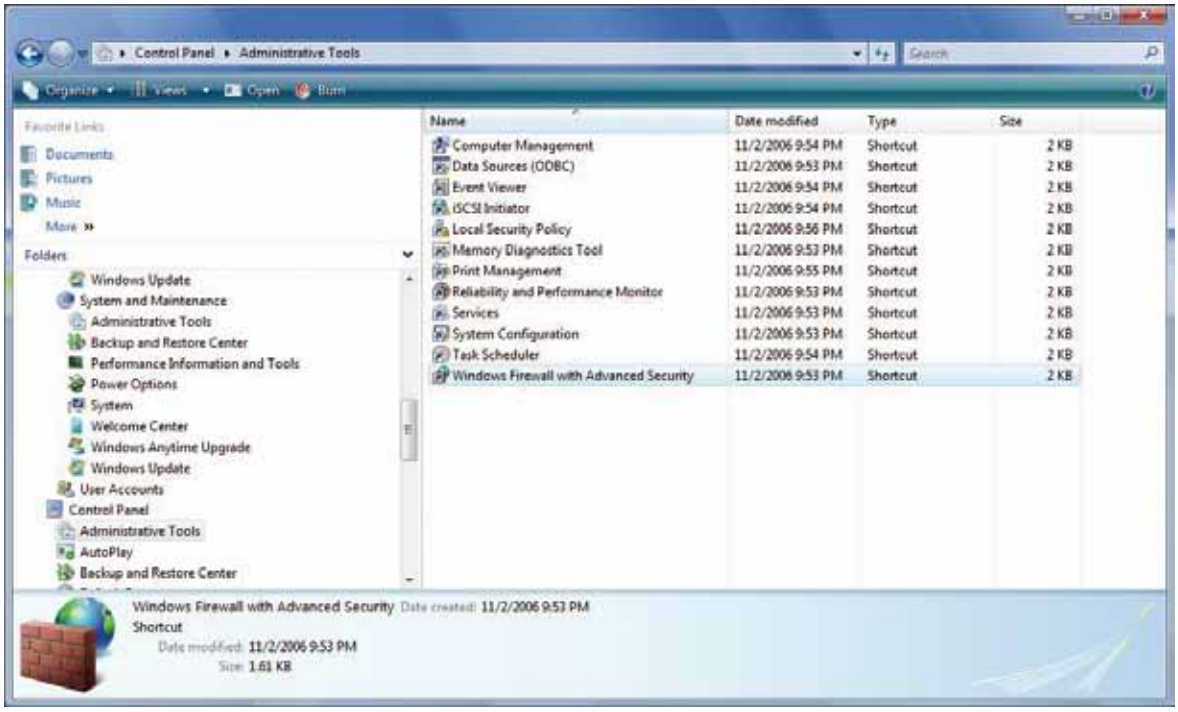
■ Procedure for Setting Firewall for Windows 7, Wondows Server 2008

● Allow the “Ping” reply.

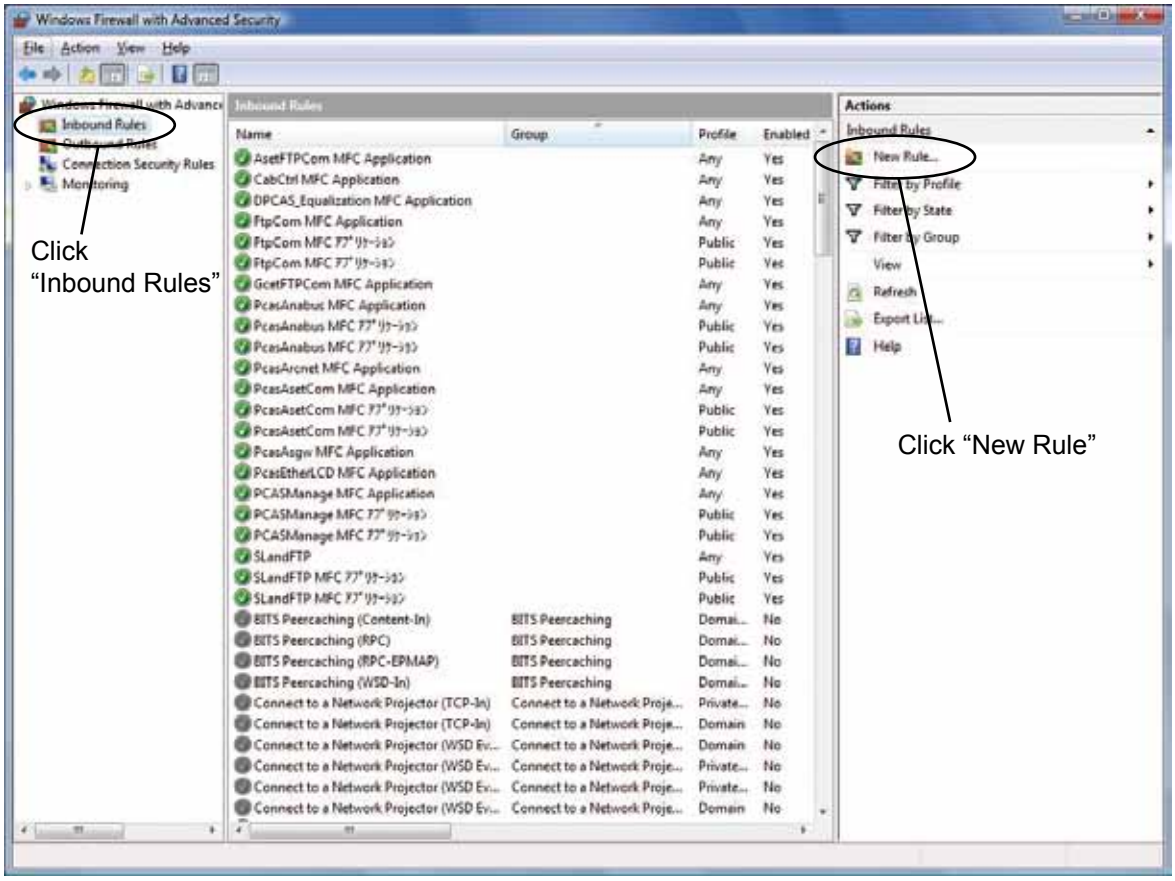
(1) Select Control Panel in the Windows Start menu to open the Control Panel window. Select “Classic View”. And then select “Administrative Tools”.



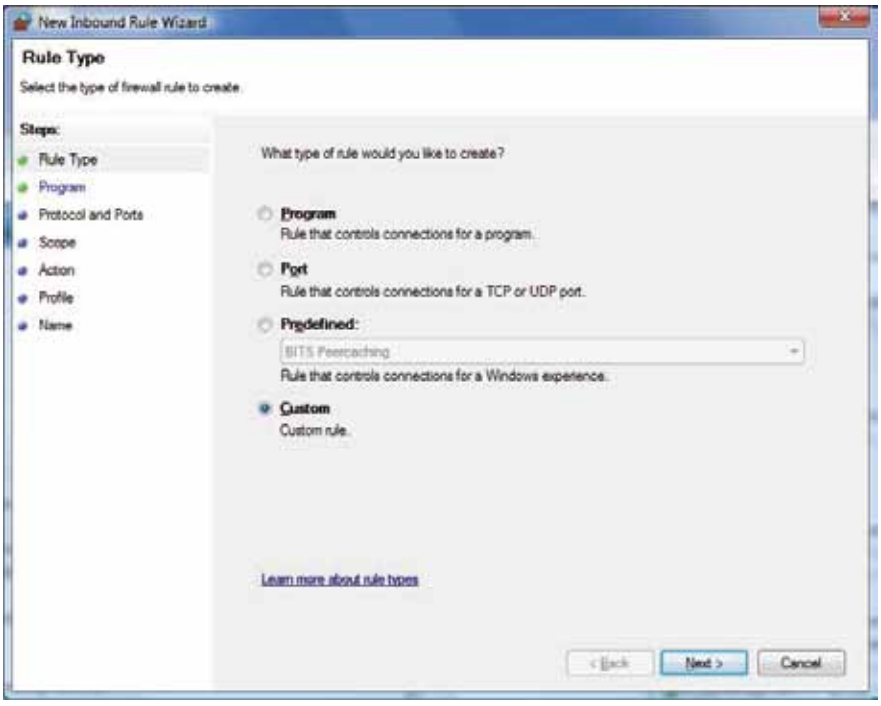
(2) Select “Windows Firewall with Advanced Security”.



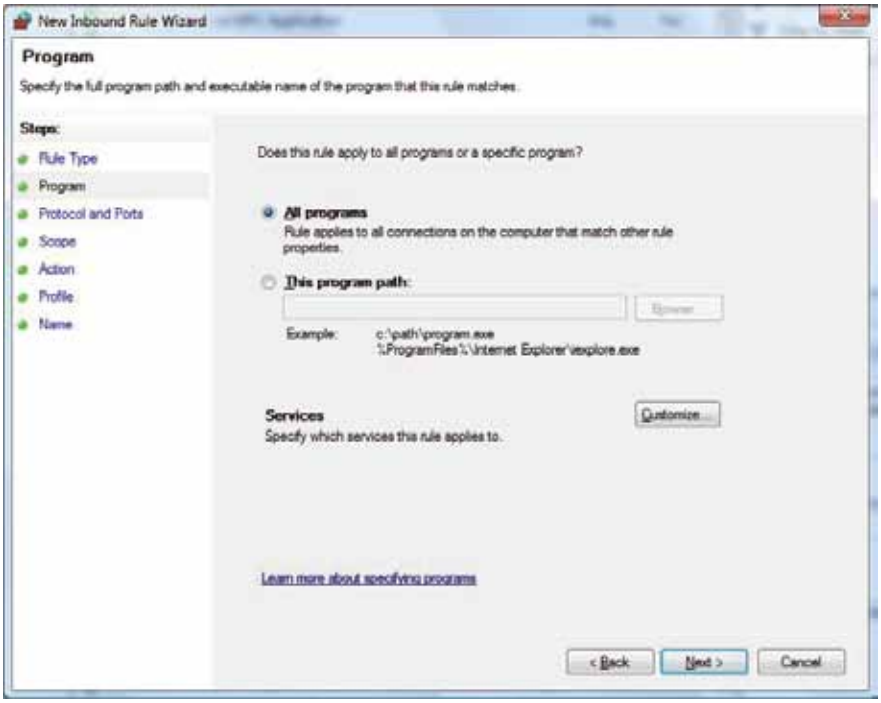
(3) Click the “Inbound Rules”. And then, click “New Rule” to make a new security rule.



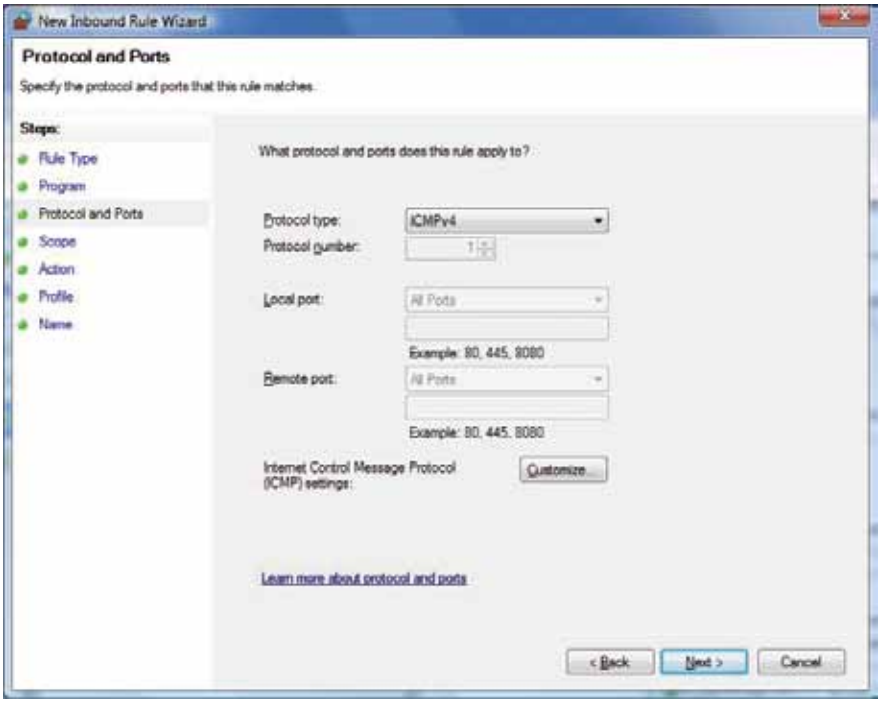
(4) Select “Custom” as the “Rule Type”. Click “Next”.



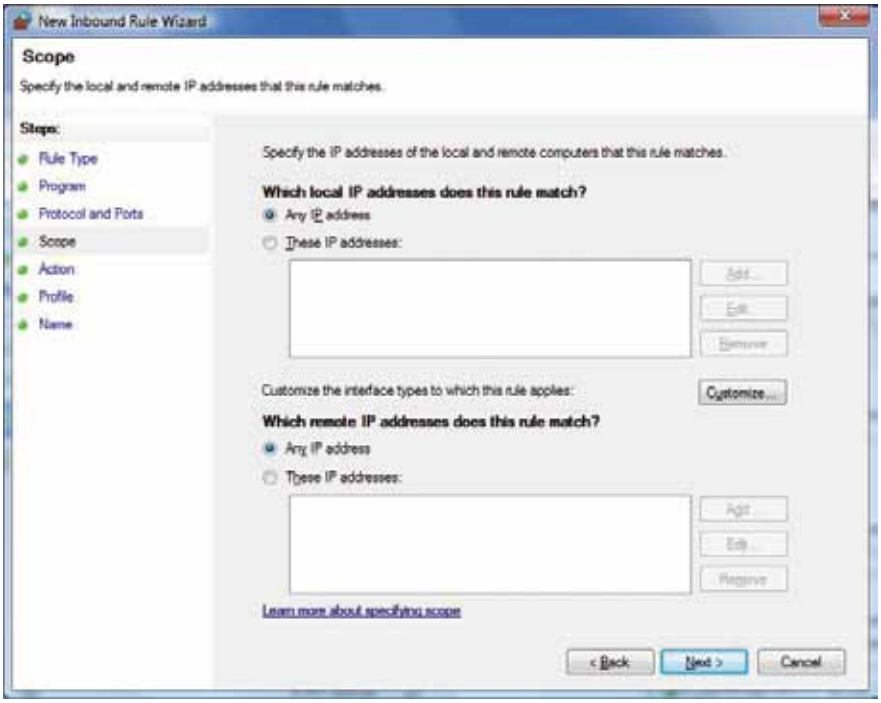
(5) Select “All Program” as the “Program”. Click “Next”.



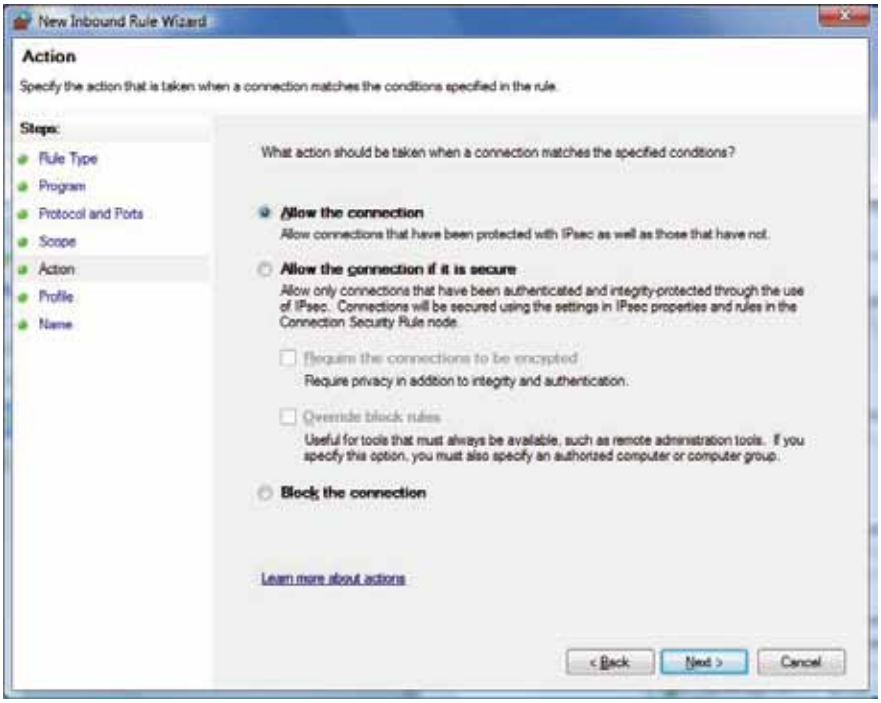
(6) Select “ICMPv4” for Protocol Type in the “Protocol and Ports”. Click “Next”.



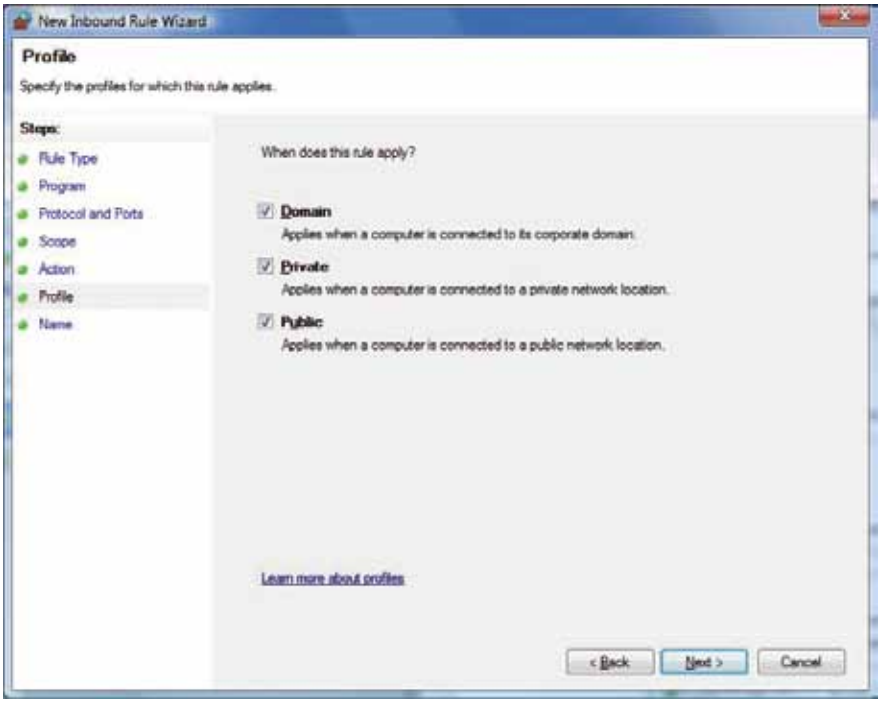
(7) Select “Any IP Address” in the “Scope”. Click “Next”.



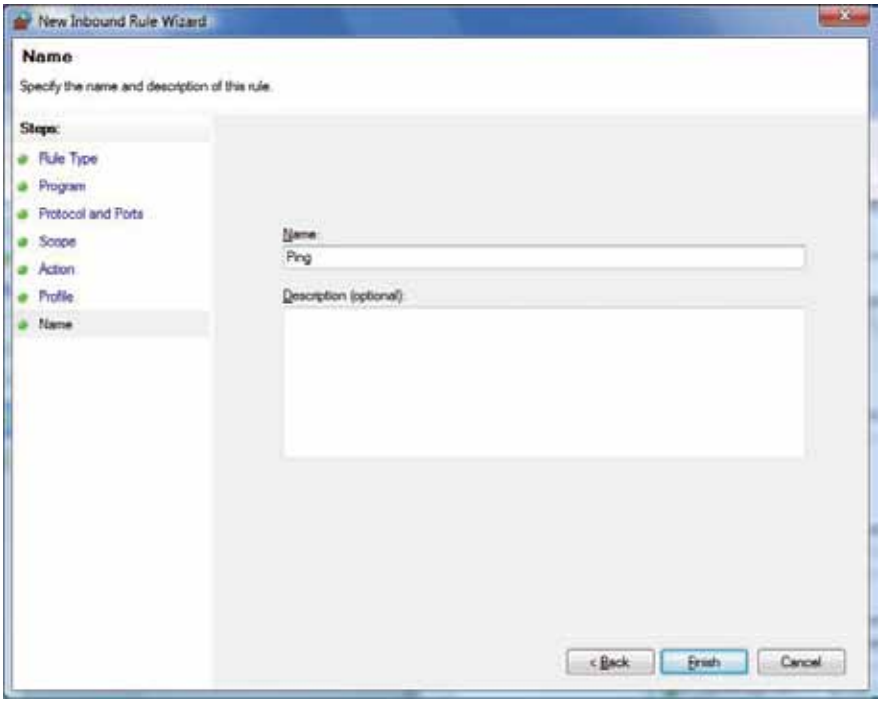
(8) Select “Allow the connection” in the “Action”. Click “Next”.


New Inbound Rule Wizard
Action
Specify the action that is taken when a connection matches the conditions specified in the rule.
Steps:
Rule Type
Program
Protocol and Ports
Scope
Action
Profile
Name
What action should be taken when a connection matches the specified conditions?
Allow the connection
Allow connections that have been protected with IPsec as well as those that have not.
Allow the connection if it is secure
Allow only connections that have been authenticated and integrity-protected through the use of IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.
Require the connections to be encrypted
Require privacy in addition to integrity and authentication.
Override block rules
Useful for tools that must always be available, such as remote administration tools. If you specify this option, you must also specify an authorized computer or computer group.
Block the connection
Learn more about actions
< Back
Next >
Cancel

(9) Select “Domain”, “Private” and “Public” as the “Profile”. Click “Next”.

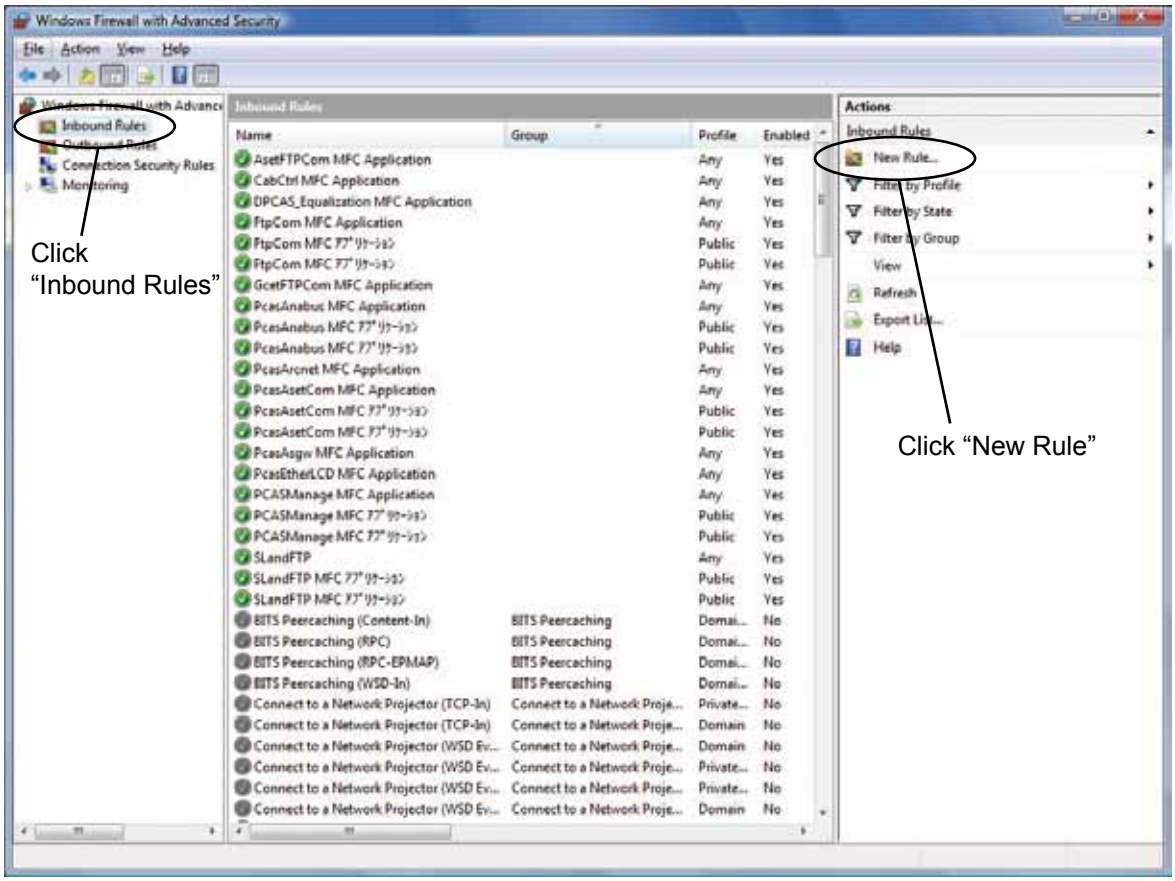


(10) Type “Ping” as the “Name”. And then click “Finish”.

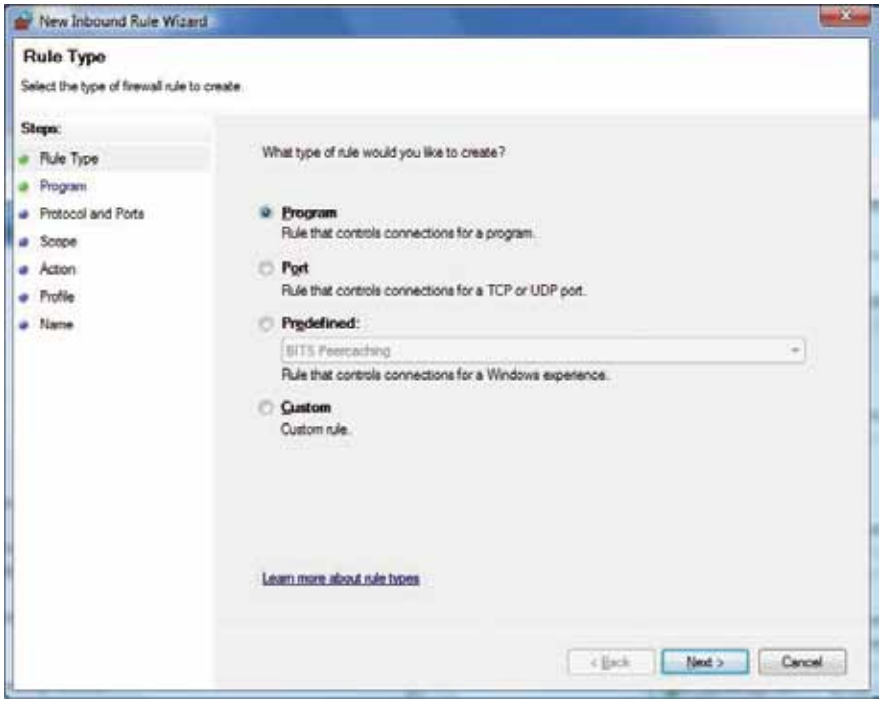


● Allow the “FTP Server” .

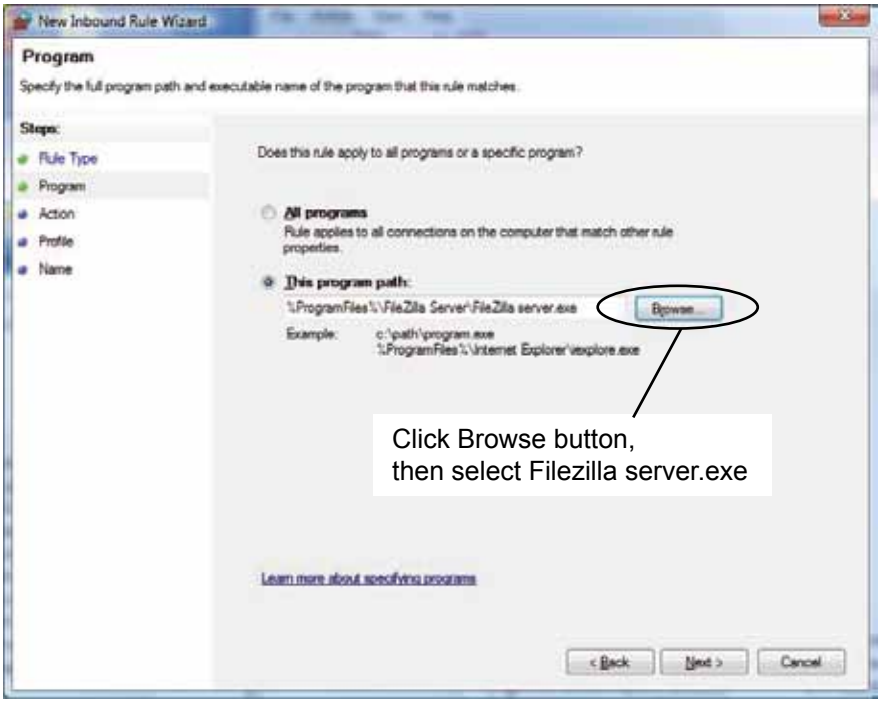
(1) Click the Inbound Rules. And then, click “New Rule” to make a new security rule.
New Inbound Rules Wizard appears.



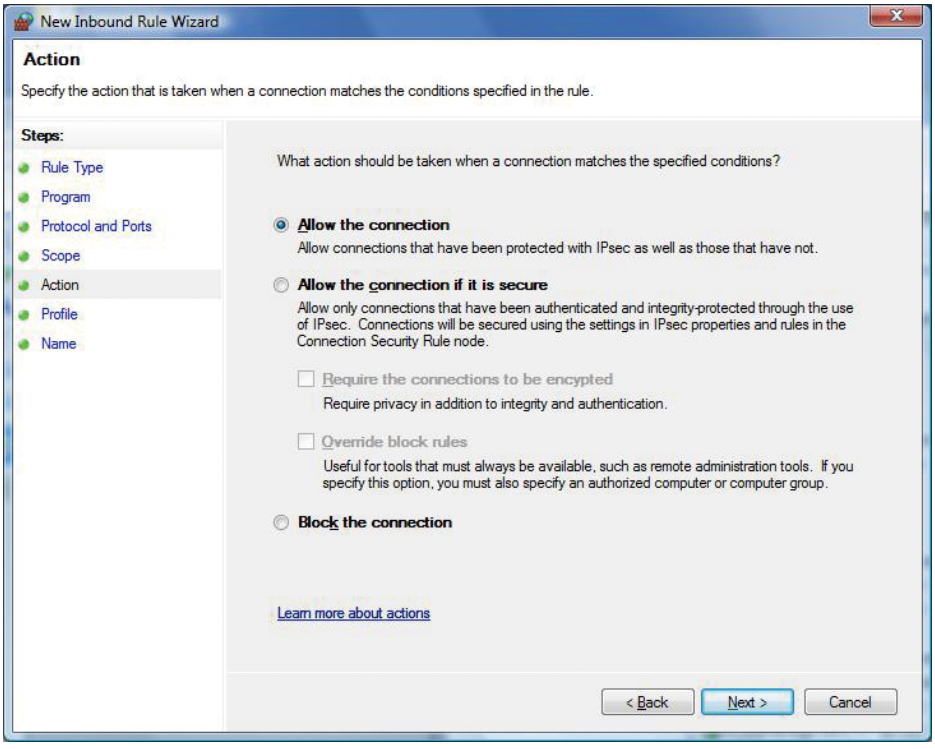
(2) Select “Program” as the “Rule Type”. Click “Next”.



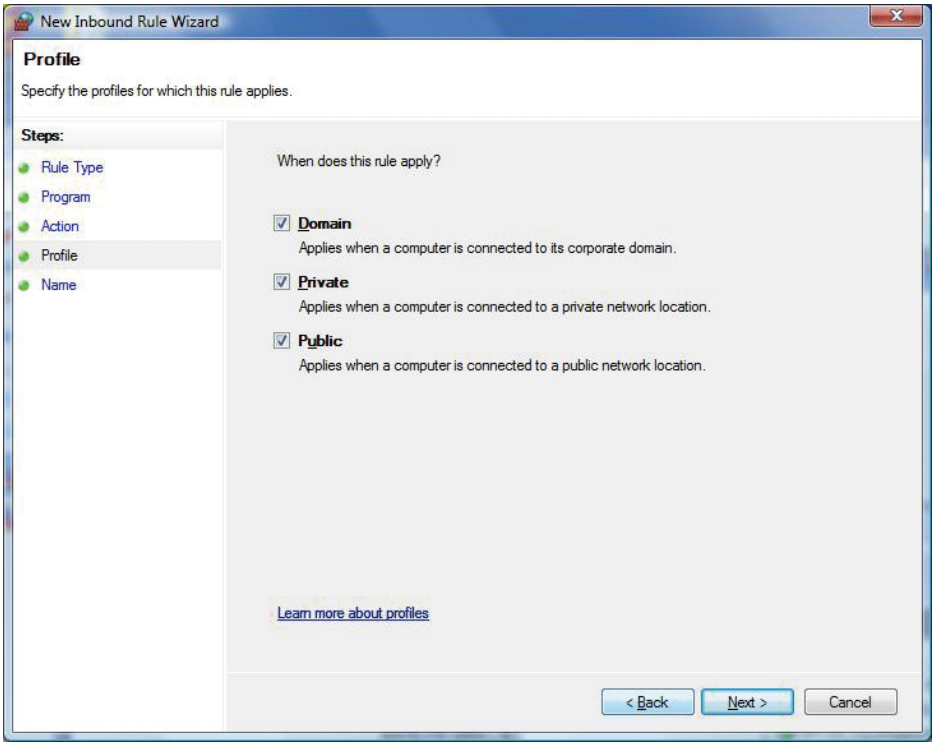
(3) Select “Browse” button as the “Program”. And then select Filezilla server.exe. Click “Next”.



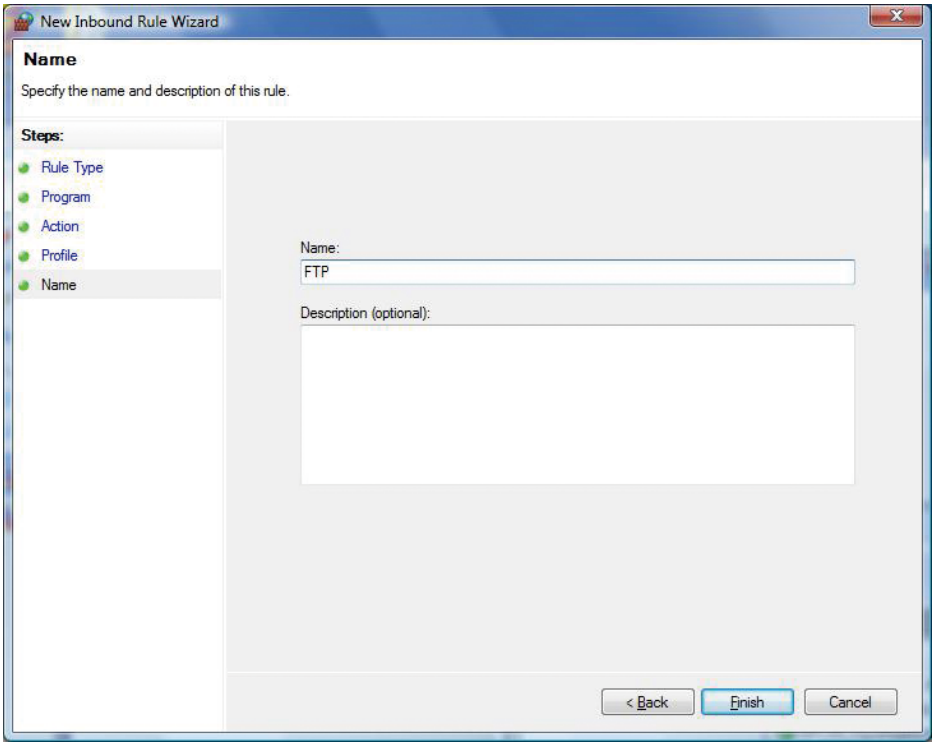
(4) Select “Allow the connection” as the “Action”. Click “Next”.


New Inbound Rule Wizard
Action
Specify the action that is taken when a connection matches the conditions specified in the rule.
Steps:
Rule Type
Program
Protocol and Ports
Scope
Action
Profile
Name
What action should be taken when a connection matches the specified conditions?
Allow the connection
Allow connections that have been protected with IPsec as well as those that have not.
Allow the connection if it is secure
Allow only connections that have been authenticated and integrity-protected through the use of IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.
Require the connections to be encypted
Require privacy in addition to integrity and authentication.
Override block rules
Useful for tools that must always be available, such as remote administration tools. If you specify this option, you must also specify an authorized computer or computer group.
Block the connection
Learn more about actions
< Back
Next >
Cancel

(5) Select “Domain”,”Private”,”Public” as the “Profile”. Click “Next”.



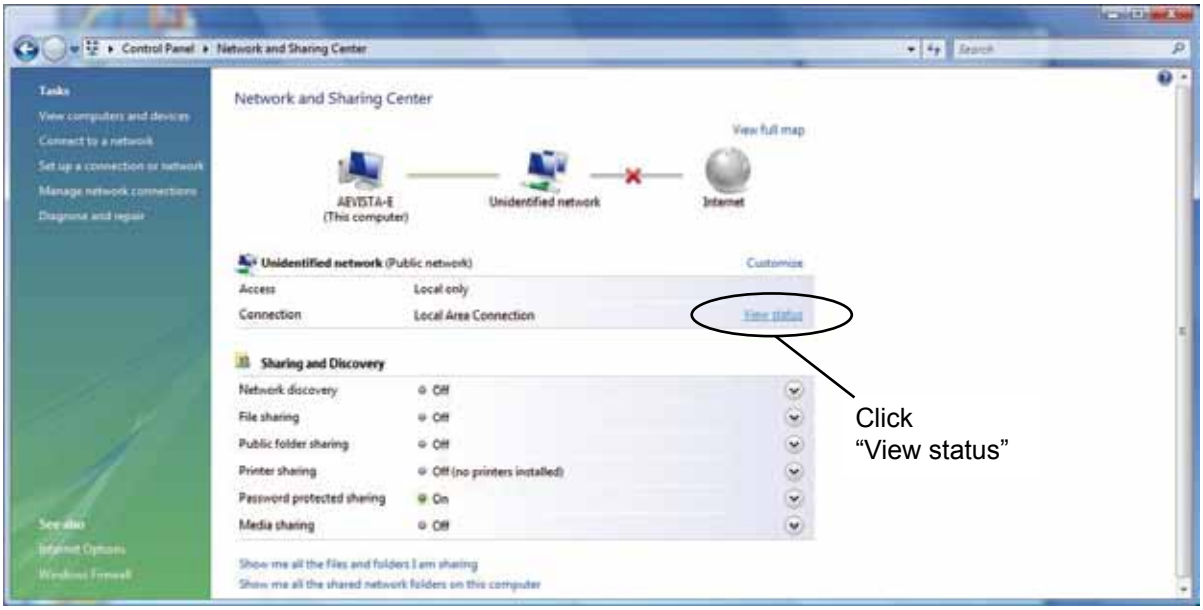
(6) Type “FTP” as the “Name”. And then click “Finish”.



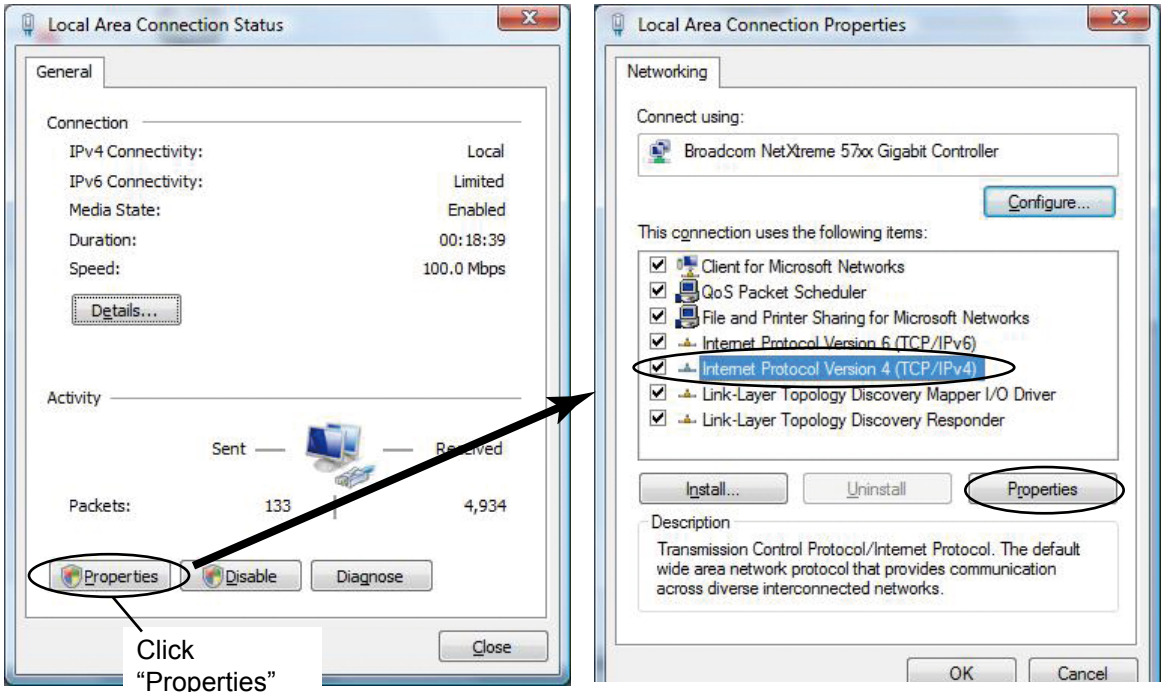
Setting IP Address for Windows 7

About the IP address, consult network administrator.

(1) Select Control Panel in the Windows Start menu to open the Control Panel window.And then select “Network and Sharing Center”. And then click “View Status”.

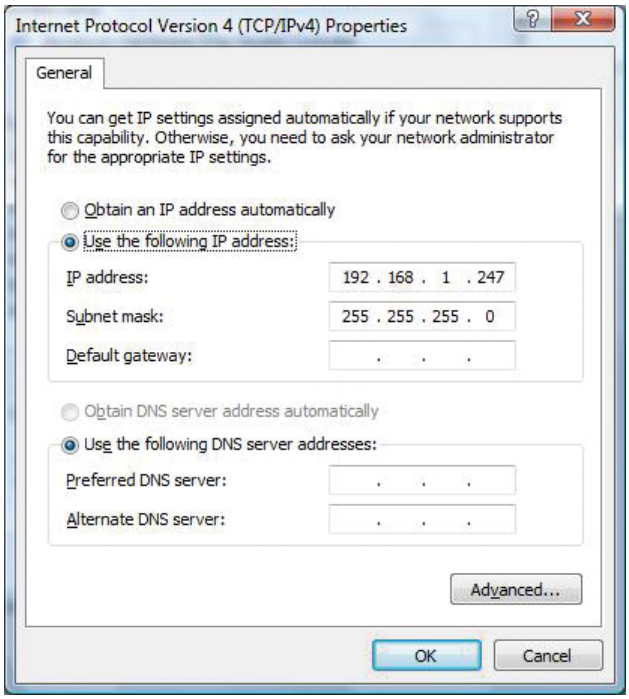


(2) Select “Properties” to show “Local Area Connection Properties”. And then, Select “Internet Protocol Version4(TCP/IPv4)”. And then Select “Properties”.



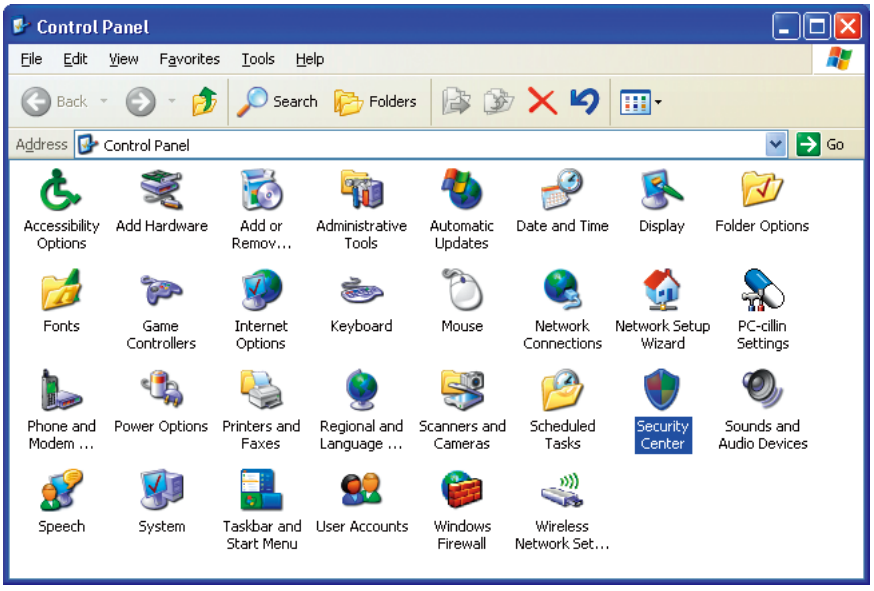
Select “Internet Protocol Version 4(TCP/Pv4)” And then select “Properties”

(3) Set the IP Address, and then click “OK” button. (The figures in following windows are sample.)


Internet Protocol Version 4 (TCP/IPv4) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 1 . 247
Subnet mask: 255 . 255 . 255 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Procedure for Setting Firewall for Windows XP

(1) Select Control Panel in the Windows Start menu to open the Control Panel window.



F0212.ai

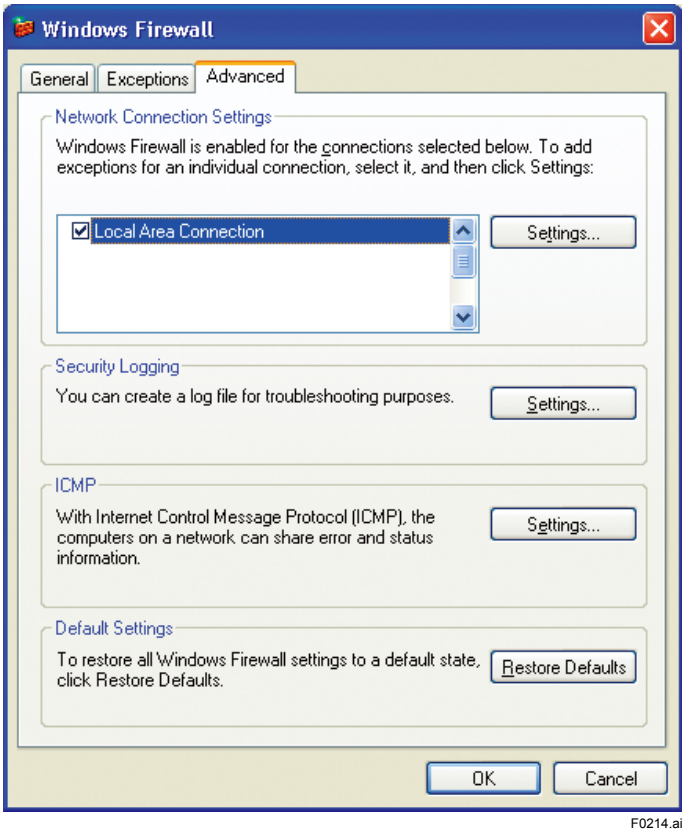
Control Panel window

(2) Double-click the Security Center icon to open the Windows Security Center window.

F0213.ai

Windows Security Center window

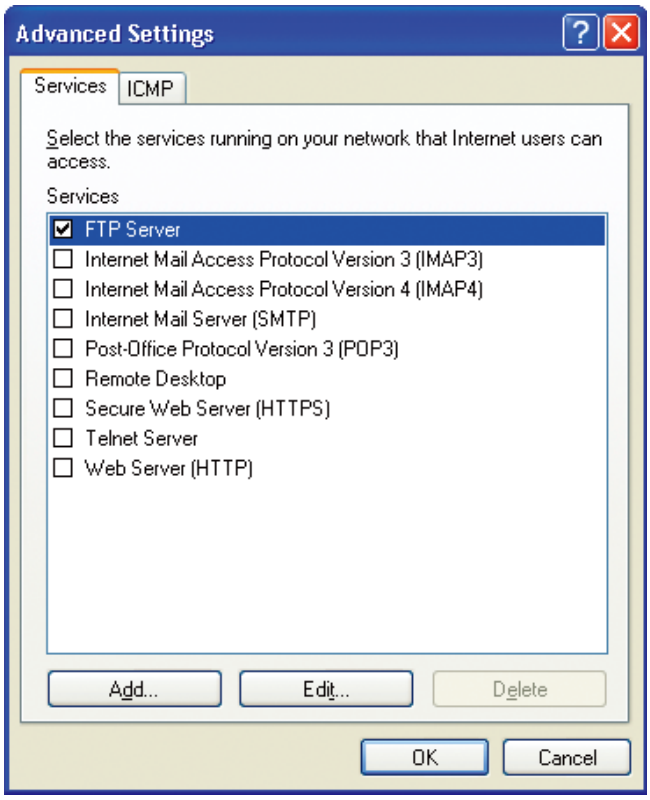
(3) Select Windows Firewall to open the Windows Firewall dialog box and then select the Advanced tab.


Windows Firewall
General
Exceptions
Advanced
Network Connection Settings
Windows Firewall is enabled for the connections selected below. To add exceptions for an individual connection, select it, and then click Settings:
Local Area Connection
Settings...
Security Logging
You can create a log file for troubleshooting purposes.
Settings...
ICMP
With Internet Control Message Protocol (ICMP), the computers on a network can share error and status information.
Settings...
Default Settings
To restore all Windows Firewall settings to a default state, click Restore Defaults.
Restore Defaults
OK
Cancel

F0214.ai

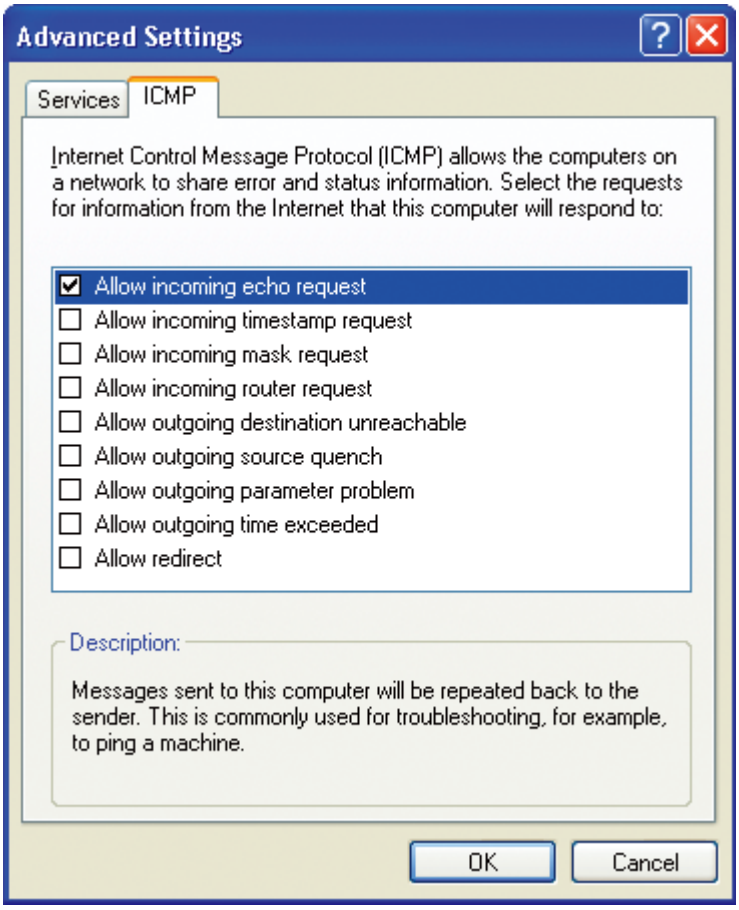
Windows Firewall Dialog Box (Advanced tab)

(4) Select “Local Area Connection” and click the Settings button to display the Advanced Settings dialog box.



Advanced Settings Dialog Box (Service tab)

(5) Select “FTP Server,” add a checkmark, and then select the ICMP tab.


Advanced Settings
Services
ICMP
Internet Control Message Protocol (ICMP) allows the computers on a network to share error and status information. Select the requests for information from the Internet that this computer will respond to:
Allow incoming echo request
Allow incoming timestamp request
Allow incoming mask request
Allow incoming router request
Allow outgoing destination unreachable
Allow outgoing source quench
Allow outgoing parameter problem
Allow outgoing time exceeded
Allow redirect
Description:
Messages sent to this computer will be repeated back to the sender. This is commonly used for troubleshooting, for example, to ping a machine.
OK
Cancel
F0216.ai

Advanced Settings Dialog Box (ICMP tab)

(6) Select “Allow incoming echo request,” add a checkmark, and then click the OK button.

Running PCAS When Firewall Enabled

If firewall software is resident on the PC on which PCAS is started, PCAS may not run as expected. In such a case, confirm the following two items. For details on confirming and modifying settings, refer to the user’s manual of the firewall software.

(1) The FTP Server function is enabled.

(2) The TCP ports 34341 to 34348, 34352, and 34353 are enabled for PCAS.

2.2 Configuring Network Settings for Dual Redundancy

For dual redundancy, use the following dual redundant configuration.

Install the Duplexed Network program for FCN/FCJ OPC Server. For details on installation, refer to the section on Duplexed Network program installation for FCN/FCJ OPC Server described in the STARDOM FCN/FCJ installation procedure (IM 34P02Q91-01E). A license and CD is required.

A virtual IP address and the diagnostic interval need to be configured.

Getting the redundant communication status between PCAS and other analyzers

It is available to get via ASGW the redundant communication status between PCAS and an analyzer (GC8000, GC1000 Mark II, ASIU and ASGW). This function can be used on Ver1.02.02 or later of PCAS and cannot be used on “PCAS for ARCNET”.

Modbus address table

The redundant status between PCAS and other analyzers can be gotten in the following “Modbus address table” of PCAS.

NOTE

Get the information in the “Modbus address table” of PCAS via ASGW, after mapping information to that table. We assume no liability for operation if you access the “Modbus address table” directly by Modbus TCP communication.

Table 2

	Name	Address	Description
Input relay	Ch-A Normal	11XXX (11001 to 11254)	The communication status of Ch-A between the PCAS and an analyzer (GC1000MK2 ASIU and ASGW). 1:Normal, 0:Error XXX=Analyzer ID(1 to 254) The default value is 0
	Ch-B Normal	11YYY (11301 to 11554)	The communication status of Ch-A between the PCAS and an analyzer (GC1000MK2 ASIU and ASGW). 1:Normal, 0:Error YYY=300+Analyzer ID(1 to 254) The default value is 0

It is always 0 that the communication status of instrument which is NOT registered with PCAS.

Setting PCAS for getting the redundant communication status

- Setting the network Type of PCAS

  Select “Dual” about the network Type at the Builder screen in the PCAS.

  In case of selecting “Single”, communication statuses (both “Ch-A normal” and “Ch-B normal”) are 0.

- Setting PCAS to watch the redundant communication status

  Add the following setting to the file”PCASManage.INI” which is in install folder of PCAS, if you watch the redundant communication status.

  One PCAS can watch the redundant communication status of up to 4 sets of ASGW. Reboot of PC is required to enable the new settings.

  [ASGW]

  IP_1=192.168.0.151

  IP_2=192.168.0.152

  IP_3=192.168.0.153

  IP_4=192.168.0.154

2.3 Starting PCAS

PCAS starts automatically when you log on to Windows. (Registered in Startup at the time of installation.) When PCAS starts normally, the Status screen (refer to “3.2 Status Screen”) appears. After starting, PCAS attempts to establish a communication connection with all registered analyzers.

PCAS is normally made to stay resident in a minimized state. It can also be started by double-clicking the icon on the desktop.

Multiple instances of PCAS cannot be started.

Icon Display

The icon displayed for PCAS changes as shown below in accordance with the state of PCAS.

Alarm Status	Icon Display Color
None	Green
Level 2 Alarm	Yellow
Level 1 Alarm	Red

Popup Menu of Task Tray Icon

Double-clicking the PCAS icon in the task tray displays the Status screen. When the icon in the task tray is right-clicked, a popup menu appears. The configuration of the popup menu is as follows.

Menu Item	Process When Selected
Maintenance Screen	Starts the Maintenance screen.
Alarm Screen	Starts the Alarm Status screen.
Network Monitoring Screen	Starts the Network Monitoring screen.
Exit PCAS	Ends PCAS. (Requires a password to be entered.)

2.4 Configuring Settings

In the Status screen, select Maintenance Screen from Screen menu. In the Maintenance screen, select Level C for User Level of the System menu and then enter a password.

About the password refer to User's Manual of GC8000 (IM 11B08A01-01E) or Password Manual (IM 11B03A03-07E).

If the server communication status is set to "Enable PCAS Com.", click the "Disable PCAS Com", button and set the server communication status to "Disable PCAS Com".

Select Builder Screen from the Screen menu of the Maintenance screen. In the Builder screen, set the following items. (Refer to "5. Builder Screen.")

Clicking System displays the System Parameter Configuration dialog box.

System Parameter Configuration Dialog Box

Display Item	Description
PCAS ID	The ID of the server. 241 to 254
PCAS IP Address	The IP address of the server.
Analyzer num.	The number of the analyzer connected.
Network Type	The network type of the primary server. Options: Dual/Single
PCAS Type	The type of the server. Options: Primary/Secondary
Save term for Latest ana. result (Mon)	The storage period for the latest analysis results. Range: 0 to 120 (Month)
Disk for Latest ana. result (GB)	The necessary harddisk size to be saved the latest analysis results.
Save term for Hist. chrom. (Full) (Mon)	The storage period for history chromatographs (each time). Range: 0 to 120 (Month)
Disk for Hist. chrom. (Full) (GB)	The necessary harddisk size to be saved the latest analysis results to be saved the history chromatogram (each time).
Save term for Hist. chrom. (1/10) (Mon)	The storage period for history chromatographs (1/10). Range: 0 to 120 (Month)
Disk for Hist. chrom. (1/10) (GB)	The necessary harddisk size to be saved the latest analysis results to be saved the history chromatogram (1/10).
Save term for ASIU trend (Mon)	The storage period for the ASIU instantaneous values. Range: 0 to 120 (Month)
Disk for ASIU trend (GB)	The necessary harddisk size to be saved the latest analysis results to be saved the ASIU instantaneous value.
Save term for ASIU ave. (Mon)	The storage period for the ASIU average values. Range: 0 to 120 (Month)
Disk for ASIU ave. (GB)	The necessary harddisk size to be saved the latest analysis results to be saved the ASIU arerage value.
Disk Full alarm size (MB)	A disk full warning is generated if remaining hard disk space falls below this value.
Disk Full Error size (MB)	A disk full error is generated if remaining hard disk space falls below this value.
PCAS Tag Name	The tag name of the primary server. Enter up to 8 single-byte alphanumeric characters.
Another PCAS IP Address	The IP address of the server paired with the primary server.
Auto Delete Check Time	The time for automatically deleting history data when the end of the storage period is reached.
Save com. log	The setting for selecting whether to save communication log data. Options: Yes or No
Max. Log Size (MB)	The setting for specifying the maximum file size for the communication log. Range: 1 to 100

Press "Analyzer" and configure the analyzer settings.

The settings for GC8000, GC1000 Mark II and ASIU differ. Select "GC8000", "GC1000 Mark II" or "ASIU" in the Analyzer Type item.

Analyzer Parameter Configuration Dialog Box

Display Item	Description

Analyzer ID	The ID of the analyzer to register.
Analyzer Type	The type of the analyzer to register. Options: GC1000MK2 or ASIU
Analyzer IP Address	The IP address of the analyzer to register.
Analyzer Tag Name	The tag name of the analyzer to register. Enter up to 8 single-byte alphanumeric characters.
AI Storage Interval (Seconds)	The save interval for instantaneous values. Range: 60 to 3600

For ASIU, also configure the settings related to DO, DI, and AI.

Press the “DO Related” key and configure the DO related settings.

DO Related Settings

Display Item	Description
No.	The number of the DO.
Tag Name	The tag name of the DO. Enter up to 8 single-byte alphanumeric characters.
Signal	The signal name of the DO. Enter up to 8 single-byte alphanumeric characters.
Color (ON)	The display color for when the DO is ON. Options: White, Green, Red, Yellow, and Light Gray
Color (OFF)	The display color for when the DO is OFF. Options: White, Green, Red, Yellow, and Light Gray

Next, press the “DI Related” key and configure the DI related settings.

DI Related Settings

Display Item	Description
No.	The number of the DI.
Tag Name	The tag name of the DI. Enter up to 8 single-byte alphanumeric characters.
Signal	The signal name of the DI. Enter up to 8 single-byte alphanumeric characters.
Color (ON)	The display color for when the DI is ON. Options: White, Green, Red, Yellow, and Light Gray
Color (OFF)	The display color for when the DI is OFF. Options: White, Green, Red, Yellow, and Light Gray

Next, press the “AI Related” key and configure the AI related settings.

AI Related Settings

Display Item	Description
No.	The number of the AI.
Tag Name	The tag name of the AI. Enter up to 8 single-byte alphanumeric characters.
Signal	The signal name of the AI. Enter up to 8 single-byte alphanumeric characters.
Unit	The unit of the AI. Options: All units registered in the AI Unit Configuration screen.
Lower range	The lower limit range of the AI. Range: -9999.999 to 9999.999 (Lower limit range<upper limit range)
Upper range	The upper limit range of the AI. Range: -9999.999 to 9999.999 (Lower limit range<upper limit range)

The units used for the AI can be defined. Refer to “5.3 AI Unit Configuration Screen.”

2.5 Monitoring

A list of the communication connection status of registered analyzers can be displayed. (Refer to “3. Status Screen.”) If an alarm or error is generated, the current alarm status and alarm history is displayed. (Refer to “7. Alarm Screen.”)

2.6 Maintenance

The following operations can be performed. (Refer to “4. Maintenance Screen.”)

- **Uploading and downloading analyzer parameters**

  The parameters set for GC8000 (GC1000 Mark II) can be managed in file format.

- **Equalizing server**

  When using two servers in a redundant configuration, stored data can be shared by both servers.

- **Dumping analyzer memory**

  This is used when confirming the internal data of a GC8000 (GC1000 Mark II).

- **Resetting analyzer**

  The analyzer can be restarted after, for example, downloading parameters to the GC8000 (GC1000 Mark II).

  Ordinary operations such as changing the mode of the analyzer are performed with ASET. For details, refer to the user’s manual for ASET (IM 11B06C01-01E).

2.7 Ending PCAS

A password is required to end PCAS.

About the password, refer to User’s Manual of GC8000 (IM 11B08A01-01E) or Password Manual (IM 11B03A03-07E).

3. Status Screen

This screen is for displaying a list of the communication connection status of all registered analyzers.

Startup Method

- Start PCAS.
- Double-click the icon in the task tray.

Functions

- Displays a list of the communication connection status for all registered analyzers.
- Calls up the Maintenance screen, Network Monitoring screen, and Alarm Status screen.

Screen Configuration

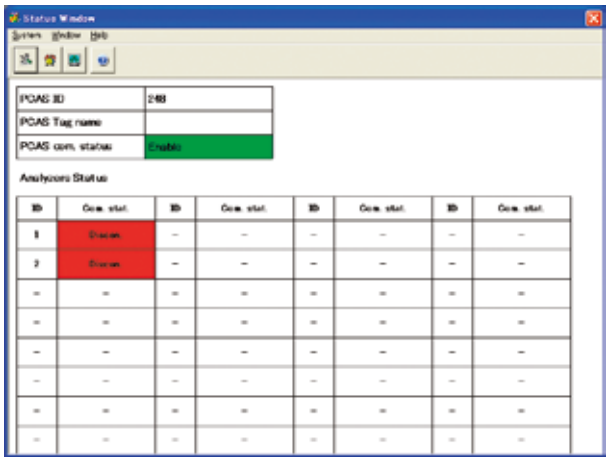

F0301.ai

Figure 3.1 Example of Status Screen

Display Item	Description
PCAS ID	The ID of the primary server. (Configure this in the Builder screen.)
PCAS Tag Name	The tag name of the primary server. (Configure this in the Builder screen.)
PCAS com. status	Displays the current communication status. (Operation is performed in the Maintenance screen.)
	Permit Connection (Green):
	Do Not Permit Connection (Light Gray):
Analyzer Status	Displays the status of analyzers with settings registered in the Builder screen.
ID	The ID of the analyzer.
Com. stat.	Displays the current communication status.
	Performing Communication (Green): Communication is being performed normally.
	Establishing Connection (Yellow): The communication connection is being processed.
	Connection Disconnected (Red): Not connected. A ping command is repeatedly sent at a specific interval.
	Do Not Permit Connection (Light Gray): A communication connection cannot be established because of the server settings. A ping command is not sent.

The number of display columns for the analyzer status varies as shown below depending on the number of analyzers registered (maximum of 64 analyzers).

Number of Analyzers	Number of Display Columns
1 to 32	4
33 to 40	5
41 to 48	6
49 to 56	7
57 to 64	8

Toolbar

: This performs the same function as the Maintenance Screen command in the Screen menu. The Maintenance screen opens. (Refer to chapter 4.)

: This performs the same function as the Alarm Status Screen command in the Screen menu. The Alarm Status screen opens. (Refer to section 7.2.)

: This performs the same function as the Network Monitoring Screen command in the Screen menu. The Network Monitoring screen opens. (Refer to chapter 6.)

: This performs the same function as the Contents command in the Help menu. Help opens.

Button

: This performs the same function as the Close command in the System menu. The Status screen closes. The PCAS software remains open but is minimized to the task tray.

4. Maintenance Screen

This screen is for uploading and downloading the parameters of analyzers and changing the communication status (Permit Connection/Do Not Permit Connection) of the server.

Startup Method

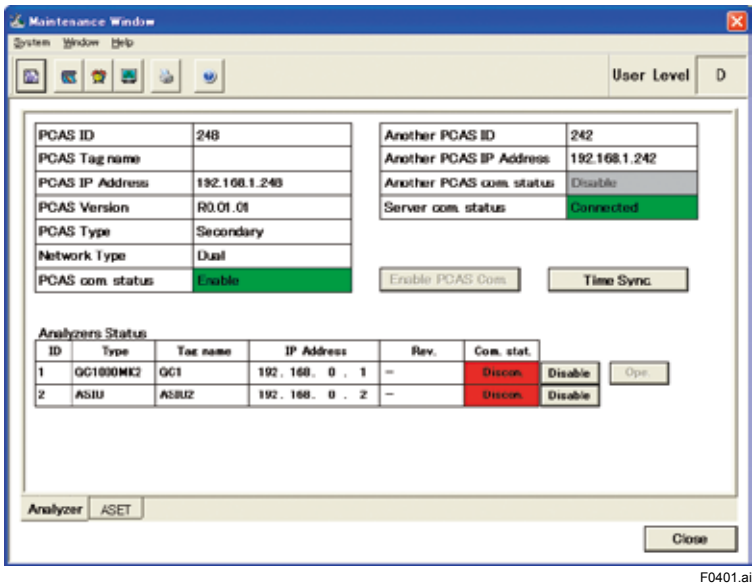
- Click Maintenance Screen from the popup menu that appears by right-clicking the task tray.
- In the Status screen, select Maintenance Screen from the Screen menu or click .

The analyzer connection status display screen is displayed when the Maintenance screen starts.

Functions

- Changes the communication status (Permit Connection/Do Not Permit Connection) of the server.
- Disconnects the communication connection of the specified ASET.
- Connects/disconnects the communication connection with the specified analyzer.
- Sets the time for all analyzers.
- Uploads/downloads the parameters of a GC8000 (GC1000 Mark II).
- Resets a GC8000 (GC1000 Mark II).
- Calls up the Builder screen, Network Monitoring screen, and Alarm Status screen.
- Changes the user level.
- Changes the display language to Japanese/English.
- Equalizes the server.
- Performs printout.

Screen Configuration



F0401.ai

Figure 4.1 Example of Maintenance Screen (when Analyzer Connection Status Display Screen is Selected)

The following two screens can be selected with the tabs in the bottom left.

Analyzer Connections:	Displays the Analyzer Connection Status Display screen. (Refer to section 4.1.)
ASET:	Displays the ASET Connection Status Display screen. (Refer to section 4.2.)

Note: The initial state is to display Analyzer Connections (Analyzer Connection Status Display screen).

Toolbar

: This performs the same function as the User Level command in the System menu.

: This performs the same function as the Builder Screen command in the Screen menu. The Builder screen opens. (Refer to chapter 5.)

: This performs the same function as the Alarm Status Screen command in the Screen menu. The Alarm Status screen opens. (Refer to section 7.2.)

: This performs the same function as the Network Monitoring Screen command in the Screen menu. The Network Monitoring screen opens. (Refer to chapter 6.)

: This performs the same function as the Print command in the System menu.

: This performs the same function as the Contents command in the Help menu.
Help opens.

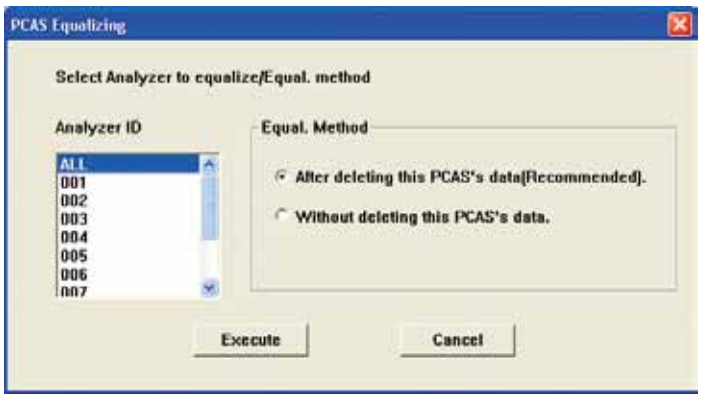
Button

: This performs the same function as the Close command in the System menu.
The Maintenance screen closes.

Menu Items

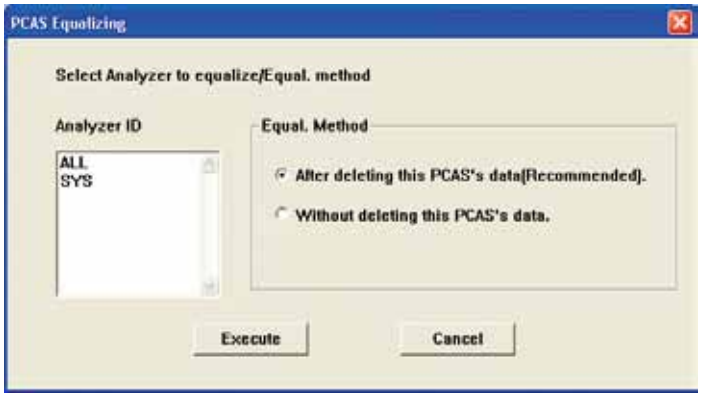
- **Changing User Level**
  Change the user level with User Level command of the System menu. This User Level command and the Set User Level button on the toolbar are disabled while the Builder screen is open.
- **Changing Display Language to Japanese/English**
  Change the display language with the Language command of the System menu. This operation can only be performed if the user level is C or above. PCAS restarts when the display language is changed.
  Note: If the language of the operating system is not selected, some display characters may not appear or may be garbled.
- **Equalizing Server**
  Copy the data on the secondary server to the primary server. Equalize the server with the Equalize Server command of the System menu.
  Please contact Yokogawa service staff if this function is needed.

Clicking the Equalize Server command in the System menu displays the following dialog box.



F0402.ai

Start Equalizing Dialog Box (When System Information of PCAS Matches)

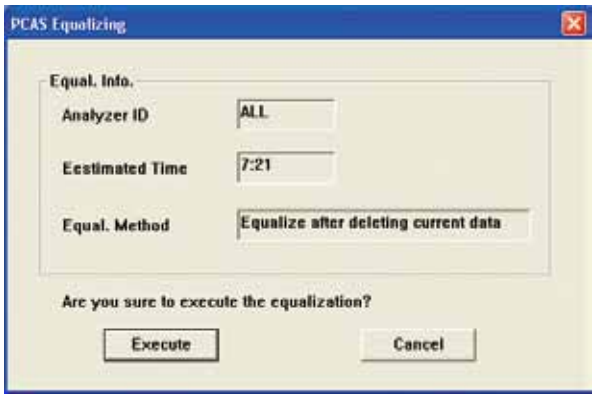


F0403.ai

Start Equalizing Dialog Box (When System Information of PCAS Does Not Match)

- **Analyzers Subject to Equalizing**
  Select from analyzer IDs (001 to 240), ALL (all registered analyzers), and SYS (system).
- **Equalizing Procedure**
  Select from equalizing after deleting data (the data of the primary server is deleted prior to copying the data from the secondary server) and overwrite equalizing.

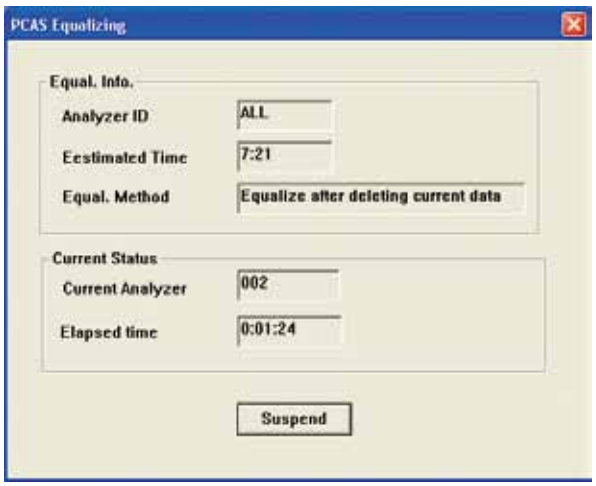
Clicking the Start Equalizing button of the Start Equalizing dialog box and then clicking the Yes button in the confirmation message displays the following dialog box.



F0404.ai

Execute Server Equalization Dialog Box

Clicking the Execute Server Equalization button of the Execute Server Equalization dialog box executes equalizing and displays the following dialog box.



F0405.ai

Dialog Box Displayed During Server Equalizing

- **Printing**

  Print the current communication status of PCAS, analyzers, and ASET. Printing is performed with Print command of the System menu.

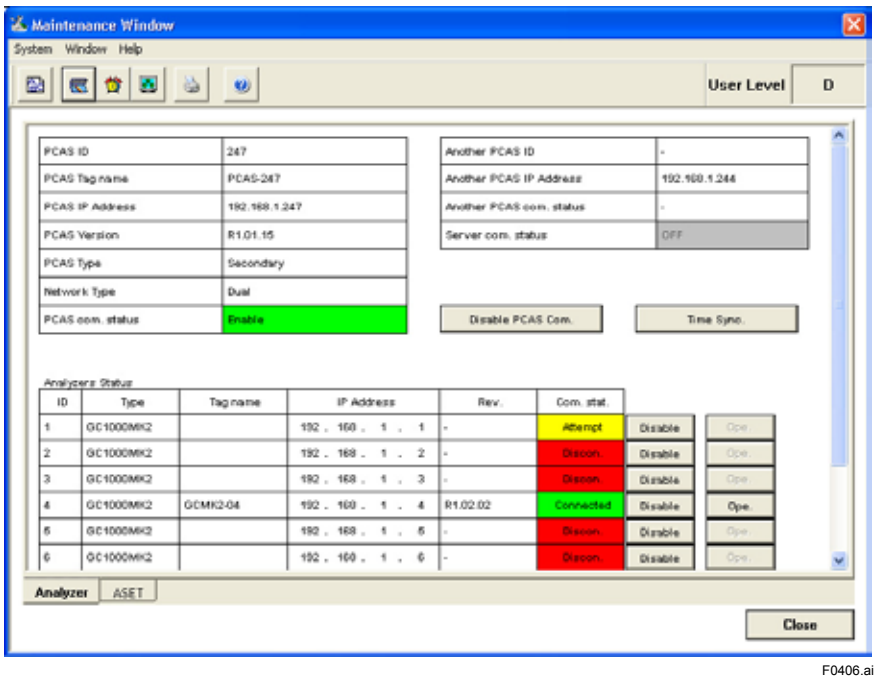
4.1 Analyzer Status Display Screen

This screen is for displaying the status of the server and a list of the communication connection status of registered analyzers.

Display Method

Select the Analyzer Connections tab of the Maintenance window. (Since this screen is selected as the initial screen, it is displayed automatically when the Maintenance screen opens.

Screen Configuration



F0406.ai

Figure 4.2 Example of Analyzer Maintenance Display Screen

Display Item	Description
PCAS ID	The ID of the primary server.(Configure this in the Builder screen.) 241 to 254
PCAS Tag name	The tag name of the primary server. (Configure this in the Builder screen.)
PCAS IP Address	The IP address of the primary server. (Configure this in the Builder screen.)
PCAS Version	The version of the primary server. (Configure this in the Builder screen.)
PCAS Type	The type of the primary server. (Configure this in the Builder screen.) Primary/Secondary
Network Type	The network type of the primary server. (Configure this in the Builder screen.) Dual/Single
PCAS com. status	The current communication status. (Operation is performed in the Maintenance screen.) Communication Possible (Green)/Communication Not Possible (Light Gray)
Another PCAS ID	The ID of the server paired with the primary server.
Another PCAS IP Address	The IP address of the server paired with the primary server.
Another PCAS com. status	The communication status of the server paired with the primary server. Communication Possible/Communication Not Possible
Server com. status	Communication status between the primary server and the secondary server. Performing Communication (Green)/Establishing Connection (Yellow)/ Connection Disconnected (Red)/No Secondary Server (Light Gray)
Enable PCAS com. Disable PCAS com Connection Button	Switches the server communication status between Permit Connection and Do Not Permit Connection. The Do Not Permit Server Connection button is displayed when the server communication status is Permit Connection and the Permit Server Connection button is displayed when the server communication status is Do Not Permit Connection. This operation can only be performed if the user level is C or above.
Time Sync	The time of all connected analyzers is adjusted to that of PCAS. This operation can only be performed if the server communication status is Permit Connection and the user level is C or above.
Analyzers Status	Displays the status of analyzers registered in the server.
ID	Displays the ID of the analyzer. (Configure this in the Builder screen.)
Type	The type of analyzer. (Configure this in the Builder screen.) GC8000/GC1000 Mark II/ASIU
Tag Name	The tag name of the analyzer. (Configure this in the Builder screen.)
IP Address	The IP address of the analyzer. (Configure this in the Builder screen.)
Rev.	The revision of the analyzer.
Com. stat.	The communication status of the analyzer. Performing Communication (Green)/Establishing Connection (Yellow)/ Connection Disconnected (Red)/Do Not Permit Connection (Light Gray)
Switch Communication Status Button	Changes the communication status of individual analyzers. The Not Possible button is displayed when communicating, establishing a connection, or disconnected and the Permit button is displayed when a connection is not possible. This operation can only be performed if the user level is C or above. However, it cannot be performed if the server communication status is Do Not Permit Connection.
Operation Button	Displays the Analyzer Operation dialog box. It is only displayed if the analyzer type is GC8000 or GC1000 Mark II. This operation can only be performed if the user level is C or above and the communication status is performing communication.

Operation Button

Clicking the Operation button of the Analyzer Connection Status Display screen displays the Analyzer Operation dialog box. This dialog box is for operating GC8000 (GC1000 Mark II) analyzers. Operation is only possible for analyzers that are connected. The following functions can be selected when the user level is C or above.

- Uploading parameters of GC8000 (GC1000 Mark II)
- Downloading parameter to GC8000 (GC1000 Mark II)
- Dumping memory of GC8000 (GC1000 Mark II)
- Resetting GC8000 (GC1000 Mark II)

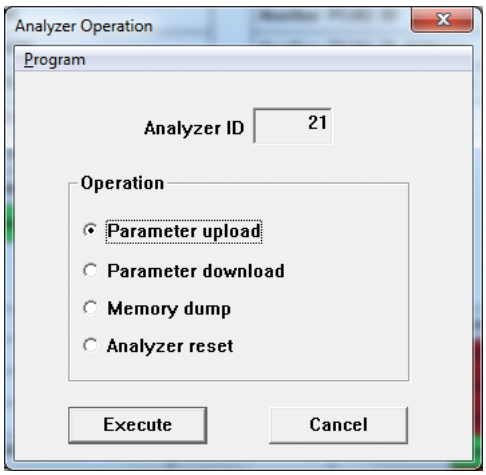


Figure 4.3 Analyzer Operation Dialog Box

(1) Upload Parameter

This uploads parameters of the corresponding GC8000 (GC1000 Mark II). This operation is only possible if the user level is C or above and the measurement status of the GC8000 (GC1000 Mark II) is Process Stopped. However, the measurement status cannot be changed from the PCAS window. Change the status from ASET, GCET, or EtherLCD. The extension of the saved parameter file is ".px1" for GC8000, ".pr7" for GC1000 Mark II.

(2) Download Parameter

This downloads the saved parameters to the corresponding GC8000 (GC1000 Mark II). This operation is only possible if the user level is C or above and the measurement status of the GC8000 (GC1000 Mark II) is Process Stopped. The extension of the parameter file is ".px1" for GC8000, ".pr7" for GC1000 Mark II. The GC8000 (GC1000 Mark II) is reset after downloading completes.

(3) Dump Memory

This saves a memory dump of the corresponding GC8000 (GC1000 Mark II) to a file. This operation is only possible if the user level is C or above. Specify the first address (8-digit HEX number) and data size 4-digit HEX number) of the memory dump and then execute the memory dump. The extension of the saved memory dump file is ".dmp". Use ordinary binary editing software to confirm the content of the memory dump file.

(4) Reset Analyzer

This restarts the corresponding GC8000 (GC1000 Mark II). This operation is only possible if the user level is C or above.

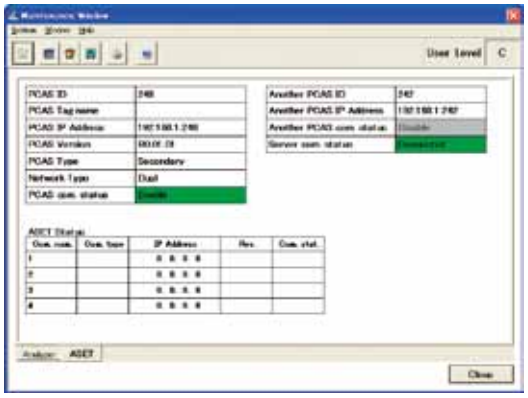
4.2 ASET Connection Status Display Screen

This screen is for displaying a list of the communication connection status of ASET.

Display Method

Select the ASET tab of the Status screen.

Screen Configuration



F0408.ai

Figure 4.4 ASET Connection Status Display Screen

Display Item	Description
PCAS ID	The ID of the primary server.(Configure this in the Builder screen.) 241 to 254
PCAS Tag name	The tag name of the primary server. (Configure this in the Builder screen.)
PCAS IP Address	The IP address of the primary server. (Configure this in the Builder screen.)
PCAS Version	The version of the primary server. (Configure this in the Builder screen.)
PCAS Type	The type of the primary server.(Configure this in the Builder screen.) Primary/Secondary
Network Type	The network type of the primary server. (Configure this in the Builder screen.) Dual/Single
PCAS com. Status	The communication status of the primary server. Communication Possible/Communication Not Possible
Another PCAS ID	The ID of the server paired with the primary server.
Another PCAS IP Address	The IP address of the server paired with the primary server.
Another PCAS com. status	The communication status of the server paired with the primary server. Communication Possible/Communication Not Possible
Server com. status	Communication status between the primary server and the secondary server. Performing Communication (Green)/Establishing Connection (Yellow)/ Connection Disconnected (Red)/No Secondary Server (Light Gray)
ASET Status	Displays the communication status of the ASET.
Com. Num	Determined by the connection request from the ASET.
Com. Type	The type of connection request from the ASET. Normal/Forced
IP address	The IP address of the ASET.
Rev.	The revision of the ASET.
Com Status	Displays the communication status of the primary server and ASET. Performing Communication (Green)/Connection Disconnected (No Indication)
Disconnect Communication Button	Disconnects communication between the primary server and the ASET. It is displayed during communication. This operation can only be performed if the user level is C or above.

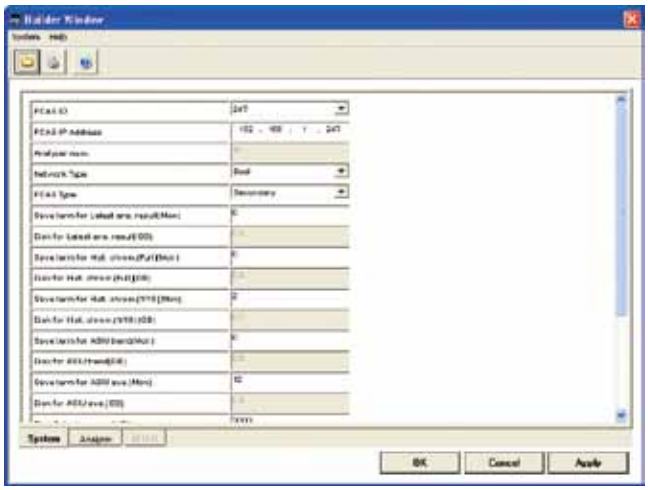
5. Builder Screen

This screen is for displaying and configuring information to define in the system file of PCAS.

Startup Method

- Select Builder Screen in the Screen menu of the Maintenance screen or click . (The initial state is to display System (System Parameter Configuration screen)).

Screen Configuration



F0501.ai

Builder Screen

The following three screens can be selected with the tabs in the bottom left.

System: Displays the System Parameter Configuration screen. (Refer to section 5.1.)
Analyzer: Displays the Analyzer Parameter Configuration screen. (Refer to section 5.2.)
AI: Displays the AI Unit Configuration screen. (Refer to section 5.3.)

Note: The initial state is to display System (System Parameter Configuration screen).

Toolbar

: This performs the same function as the Open command in the System menu.

: This performs the same function as the Print command in the System menu.

: This performs the same function as the Contents command in the Help menu. Help opens.

Buttons

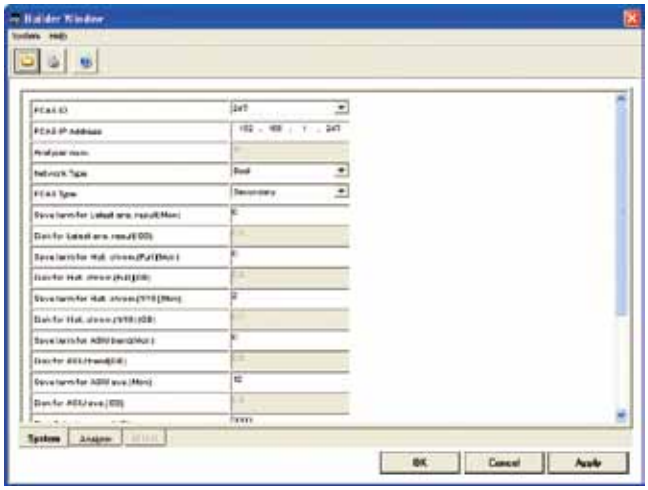
OK Button: This confirms the edited content (reflects them on PCAS) and closes the Builder screen.
Cancel Button: This discards the edited content and closes the Builder screen.
Apply Button: This confirms the edited content (reflects them on PCAS) and continues to display the Builder screen.

5.1 System Parameter Configuration Screen

This screen is for displaying and configuring each type of parameter of PCAS.

Display Method

Click the System tab in the Builder screen.



F0501.ai

System Parameter Configuration Screen

Functions

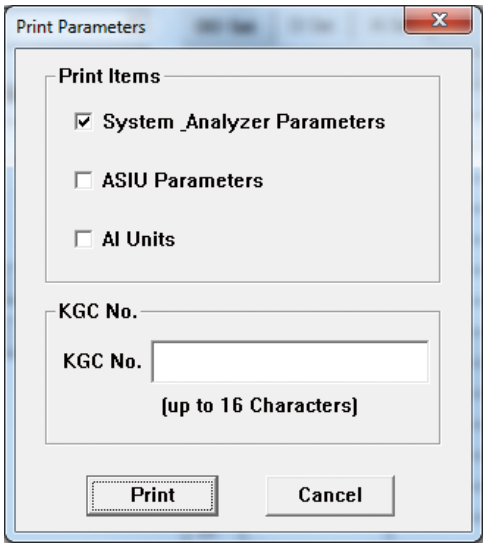
- Saving edited content to a parameter file
- Printing parameters

Saving Edited Content to Parameter File

Use the Save command or Save As command of the System menu to save the currently displayed parameters to a file.

Printing Parameters

Use the Print command of the System menu to print the currently displayed parameters. The following dialog box appears when this command is clicked.



Parameter Print Dialog Box

- **Print Items**
  Select the items to print from System/Analyzer Parameters, ASIU Parameters, and AI Unit. You can select multiple items.
- **KGC Number**
  Enter a KGC number if necessary. Enter up 16 single-byte alphanumeric characters. IF a KGC number is entered, it is printed on the bottom right of each page.

Functions

- Configuring parameters related to the PCAS system
- Permitting configuration of parameters if the server communication status is Do Not Permit Connection and the user level is C or above
- Disabling edition if the server communication status is Permit Connection or the user level is B or below

Screen Configuration

Display Item	Description
PCAS ID	The ID of the server. 241 to 254
PCAS IP Address	The IP address of the server.
Analyzer num.	The number of the analyzer connected.
Network Type	The network type of the primary server. Options: Dual/Single
PCAS Type	The type of the server. Options: Primary/Secondary
Secondary Server ID	The ID of the server paired with the primary server.
Save term for Latest ana. result (Mon)	The storage period for the latest analysis results. Range: 0 to 120 (Month)
Disk for Latest ana. result (GB)	The necessary harddisk size to be saved the latest analysis results.
Save term for Hist. chrom. (Full) (Mon)	The storage period for history chromatographs (each time). Range: 0 to 120 (Month)
Disk for Hist. chrom. (Full) (GB)	The necessary harddisk size to be saved the latest analysis results to be saved the history chromatogram (each time).
Save term for Hist. chrom. (1/10) (Mon)	The storage period for history chromatographs (1/10). Range: 0 to 120 (Month)
Disk for Hist. chrom. (1/10) (GB)	The necessary harddisk size to be saved the latest analysis results to be saved the history chromatogram (1/10).
Save term for ASIU trend (Mon)	The storage period for the ASIU instantaneous values. Range: 0 to 120 (Month)
Disk for ASIU trend (GB)	The necessary harddisk size to be saved the latest analysis results to be saved the ASIU instantaneous value.
Save term for ASIU ave. (Mon)	The storage period for the ASIU average values. Range: 0 to 120 (Month)
Disk for ASIU ave. (GB)	The necessary harddisk size to be saved the latest analysis results to be saved the ASIU arerage value.
Disk Full alarm size (MB)	A disk full warning is generated if remaining hard disk space falls below this value.
Disk Full Error size (MB)	A disk full error is generated if remaining hard disk space falls below this value.
PCAS Tag Name	The tag name of the primary server. Enter up to 16 single-byte alphanumeric characters.
Another PCAS IP Address	The IP address of the server paired with the primary server.
Auto Delete Check Time	The time for automatically deleting history data when the end of the storage period is reached.
Save com. log	The setting for selecting whether to save communication log data. Options: Yes or No
Max. Log Size (MB)	The setting for specifying the maximum file size for the communication log. Range: 1 to 100
Destination to save the analyzer data	The folder to save data (historical Chromatogram, analyzed value and calibration coefficient). It can be specified by dialog box.
Reference button	The button for calling the dialog box to specify the destination to save the analyzer data.

Data Saved on PCAS

This section describes information on the data saved on PCAS. The storage period can be set in the System Parameter Configuration screen.

PCAS Data

Saved Data	Description	Storage Folder	File Name
Communication log	The logs for communication between PCAS and analyzers are saved.	PCAS¥Log¥Axxx	CommLogxxx.log

GC8000 Data

Saved Data	Description	Storage Folder	File Name
Latest analysis results	One day of analysis results per SYS are saved to one file for one year. The oldest data is erased automatically after one year.	¥Ana¥yyyyMM¥dd	Latest analysis results information file: SZAyyMMdd.inf Latest analysis results file: SZAyyMMdd.anx
History chromatograph (every time) data	The analysis data is saved to one file.	¥FullCro¥yyyyMM¥dd¥	History chromatograph (every time) information file: DXXFyyMMdd.inf History chromatograph (every time) file: DXXFyyMMddhhmmss.chr
History chromatograph (1/10) data	The analysis data is saved to one file every ten times.	¥SkipCro¥yyyyMM¥dd	History chromatograph (1/10) information file: DXXSyyMMdd.inf History chromatograph (1/10) file: DXXSyyMMddhhmmss.chr
Calibration factor	The calibration factor is saved to one file. Up to 2000 separate calibration factor information and calibration factor items can be saved.	¥Cal	Calibration factor information file: SYCal.inf Calibration factor information old file: SYCalold.inf
Alarm	The alarm history is saved. If log size exceeds 100 kByte, file is renamed "As.log" to "As.old" or "Alm.log" to "Alm.old". When "As.old" or "Alm.old" file already exit, these are overwritten.	¥Log(alarm history log)¥Log¥Axxx(Alarm log for each analyzer, xxx: Analyzer ID)	Alarm history log: As.log Alarm log for each analyzer: Alm.log
Event log	The event is saved.	¥Log(event log)¥Log¥Axxx(event log for each analyzer, xxx: Analyzer ID)	

GC1000 Mark II Data

Saved Data	Description	Storage Folder	File Name
Latest analysis results	One day of analysis results are saved to one file for one year. The oldest data is erased automatically after one year.	AnaID¥Ana ¥yyyyMM¥dd	Latest analysis results information file: AnayyyyMMdd.inf Latest analysis results file: AnayyyyNNdd.nar
History chromatograph (every time) data	The analysis data is saved to one file.	AnaID¥FullCro ¥yyyyMM¥dd	History chromatograph (every time) information file: FullyyyyMMdd.inf History chromatograph (every time) file: FullyyyyMMddhhmmss.chr
History chromatograph (1/10) data	The analysis data is saved to one file every ten times.	AnaID¥SkipCro¥	History chromatograph (1/10) information file: SkipyyyyMMdd.inf History chromatograph (1/10) file: SkipyyyyMMddhhmmss.chr
Lab analysis results history	Lab analysis results are saved to one file.	AnaID¥Lab	Lab analysis results information file: Lab.inf Lab analysis results file: Lab.dat
Calibration factor	The calibration factor is saved to one file. Up to 1000 separate calibration factor information and calibration factor items can be saved. If this number is exceeded, a file is renamed so that its name includes “old.” If an “old” file already exists, it is not overwritten.	AnaID¥Cal	Calibration factor information file: Cal.inf Calibration factor information old file: Calold.inf Calibration factor file: Cal.dat Calibration factor old file: Cal.olda

ASIU Data

Saved Data	Description	Storage Folder	File Name
Instantaneous value	The AI value of one analysis for each second is saved to one file.	AnaID¥ASIUTrd ¥yyyyMM¥dd	ASIU instantaneous value information file: ITrdyyyyMMdd.inf ASUI instantaneous value file: ITrdyyyyMMddhhmmss.dat
Average value	The average AI value within a set period is saved to one file.	AnaID¥ASIUTrd ¥yyyyMM¥dd	ASIU average value information file: IAveyyyyMMdd.inf ASUI average value file: IAveyyyyMMddhhmmss.dat

Description of Storage Folders and Files

PCAS: Installation folder of PCAS

AnaID: PCAS¥Data¥Axxx

yyyy: Year (4 digits)

MM: Month (2 digits)

dd: Day (2 digits)

hh: Hour (2 digits)

mm: Minute (2 digits)

ss: Second (2 digits)

xxx: Analyzer ID (3 digits)

SysZ: Number of SYS (Z=1 to 6),
The storage folder for “SYSZ” is as follows; ¥PCAS¥Data¥Axxx¥SysZ¥

ww: Detector ID (ww=11, 12, 21, 22, 31, 33), “12” means detector 2 in oven 1.
The strage folder for “Detww” is as follows; ¥PCAS¥Data¥Axxx¥Detww¥

5.2 Analyzer Parameter Configuration Screen

This screen is for displaying and configuring parameters of individual analyzers.

■ Display Method

Click the Analyzer tab of the Builder screen.

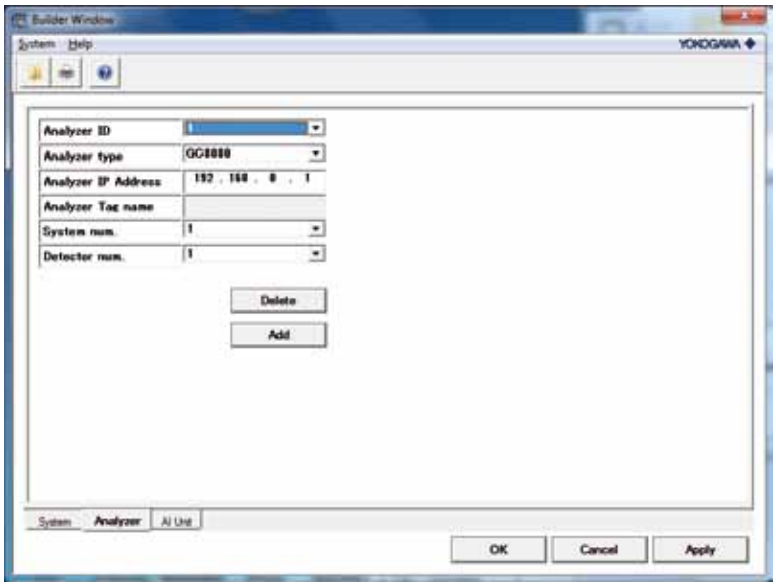
The screen configuration differs depending on the type of analyzer.

(1) GC8000, GC1000 Mark II analyzer
Analyzer Configuration Window (GC8000, GC1000 Mark II) is displayed.

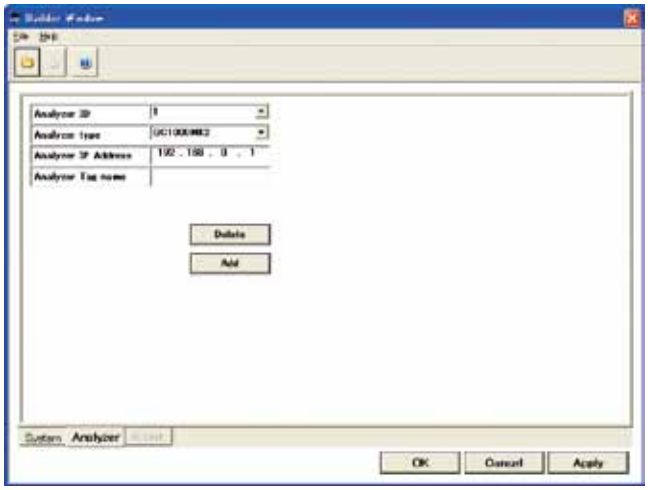
(2) ASIU analyzer
Analyzer Configuration Window (AS14) is displayed.
a. DO Related
b. DI Related
c. AI Related

5.2.1 Analyzer Configuration Screen (GC8000/GC1000 Mark II)

This screen is for displaying and configuring the parameters of GC8000 (GC1000 Mark II).



Example of Analyzer Parameter Configuration Screen (GC8000)



Example of Analyzer Parameter Configuration Screen (GC1000 Mark II)

Display Item	Description
Analyzer ID	The ID of the analyzer to register.
Analyzer Type	The type of the analyzer to register. When selecting the analyzer type, the window is switched over. Options: GC1000 Mark II/ASIU
Analyzer IP Address	The IP address of the analyzer to register.
Analyzer Tag Name	The tag name of the analyzer to register. Enter up to 8 single-byte alphanumeric characters.
SYS number	The number of SYS (only for GC8000)
Detectors number	The number of detectors (only for GC8000)

TIP

The SYS number and detectors number are used for calculation of disk space requirements.

Before connection to GC8000, enter these number to see if disk space is enough.

After connection, it is automatically computed based on the information from GC8000. Re-entering is not necessary.

- **Buttons**

Delete Button: Deletes the analyzer currently displayed. This operation can only be performed if the user level is C or above.

Add Button: Displays the Add Analyzer dialog box. This operation can only be performed if the user level is C or above.

5.2.2 Analyzer Parameter Configuration Screen (ASIU)

This screen is for displaying and configuring the parameters of ASIU. The tabs can be used to switch between the following three screens.

(a) DO Related: This screen is for displaying and configuring parameters related to DO of ASIU. (The initial state is to display the DO Related screen.)

(b) DI Related: This screen is for displaying and configuring parameters related to DI of ASIU.

(c) AI Related: This screen is for displaying and configuring parameters related to AI of ASIU.

Table 5.2 Common Items of the Analyzer Parameter Configuration Screen of ASIU

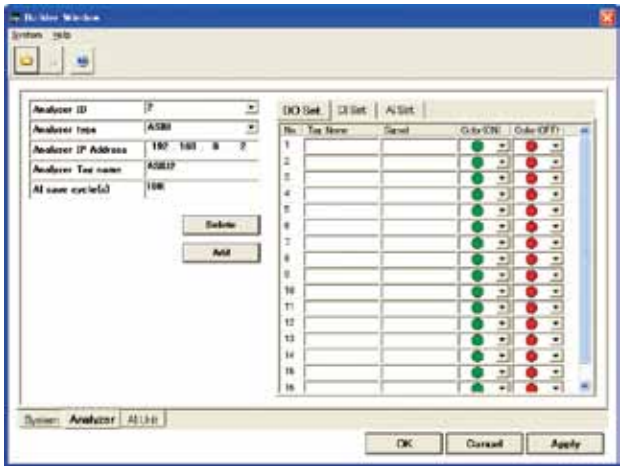
Display Item	Description
Analyzer ID	The ID of the analyzer to register.
Analyzer Type	The type of the analyzer to register. When selecting the analyzer type, the window is switched over. Options: GC1000 Mark II/ASIU
Analyzer IP Address	The IP address of the analyzer to register.
Analyzer Tag Name	The tag name of the analyzer to register. Enter up to 8 single-byte alphanumeric characters.
AI Storage Interval (Seconds)	The save interval for instantaneous values. Range: 60 to 3600

- **Buttons**

Delete Button: Deletes the analyzer currently displayed. This operation can only be performed if the user level is C or above.

Add Button: Displays the Add Analyzer dialog box. This operation can only be performed if the user level is C or above.

(a) DO Related



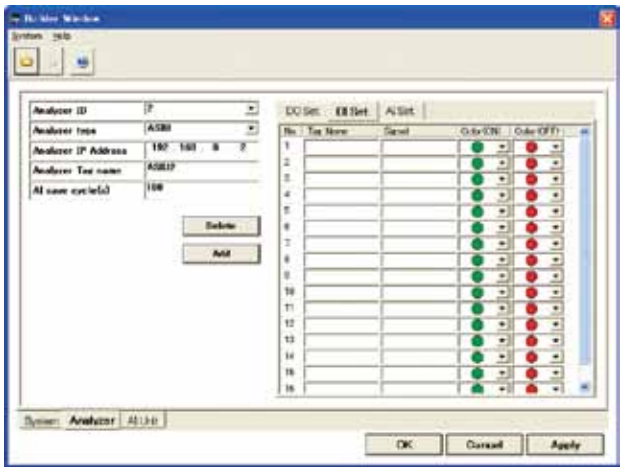
F0504.ai

Figure 5.3 Example of Analyzer Parameter Configuration Screen of ASIU (DO Related)

Table 5.3 DO Related Items

Display Item	Description
No.	The number of the DO
Tag Name	The tag name of the DO. Enter up to 8 single-byte alphanumeric characters.
Signal	The signal name of the DO. Enter up to 8 single-byte alphanumeric characters.
Color (ON)	The display color for when the DO is ON. Options: White, Green, Red, Yellow, and Light Gray
Color (OFF)	The display color for when the DO is OFF. Options: White, Green, Red, Yellow, and Light Gray

(b) DI Related



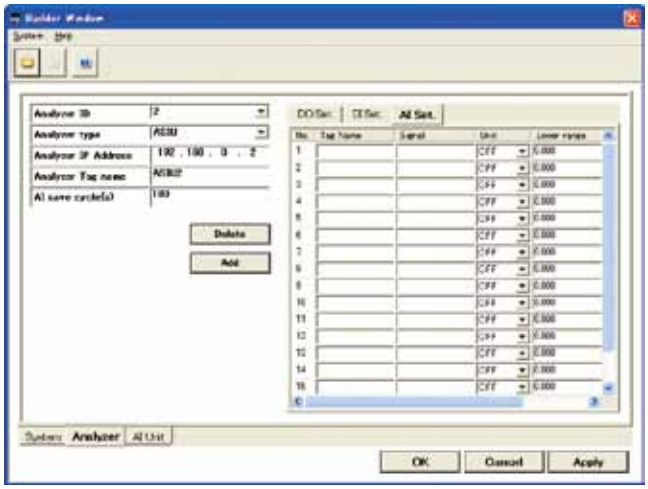
F0505.ai

Figure 5.4 Example of DI Related Display

Table 5.4 DI Related Items

Display Item	Description
No.	The number of the DI.
Tag Name	The tag name of the DI. Enter up to 8 single-byte alphanumeric characters.
Signal	The signal name of the DI. Enter up to 8 single-byte alphanumeric characters.
Color (ON)	The display color for when the DI is ON. Options: White, Green, Red, Yellow, and Light Gray
Color (OFF)	The display color for when the DI is OFF. Options: White, Green, Red, Yellow, and Light Gray

(c) AI Related



F0506.ai

Figure 5.4 Example of AI Related Display

Table 5.4 AI Related Items

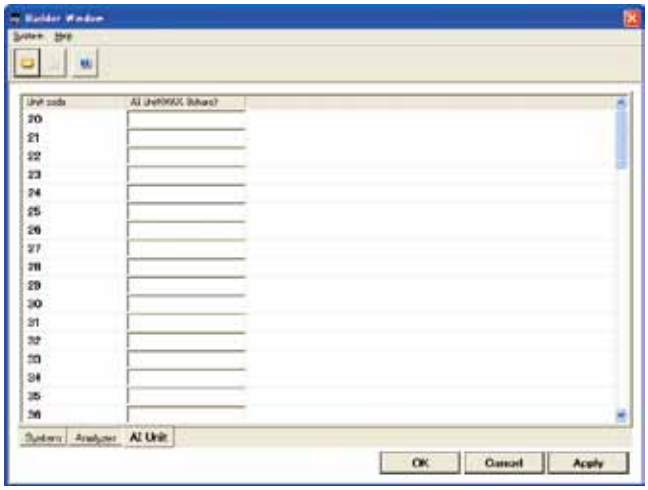
Display Item	Description
No.	The number of the AI.
Tag Name	The tag name of the AI. Enter up to 8 single-byte alphanumeric characters.
Signal	The signal name of the AI. Enter up to 8 single-byte alphanumeric characters.
Unit	The unit of the AI. Options: All units registered in the AI Unit Configuration screen.
Lower range	The lower limit range of the AI. Range: 29999.999 to 9999.999 (Lower limit range<upper limit range)
Upper range	The upper limit range of the AI. Range: 29999.999 to 9999.999 (Lower limit range<upper limit range)

5.3 AI Unit Configuration Screen

This screen is for displaying and configuring user-defined AI units for ASIU.

Display Method

Click the AI Unit tab of the Builder screen.



F0507.ai

AI Unit Configuration Screen

Display Item	Description
Unit Code	The code number for registering the AI unit. Range: 20 to 99 (0 to 19 are unavailable because they are reserved for the basic units.)
AI Unit	The AI units defined by the user. Enter up to 3 single-byte alphanumeric characters.

6. Network Monitoring Screen

This screen is for monitoring the network status of the analyzer bus.

Note: This function is for Windows XP or Windows Server 2008.

Startup Method

- Click the Network Monitoring Screen in the Screen menu of the Maintenance screen.
- Click the Network Monitoring Screen button on the toolbar in the Maintenance screen.
- Click the Network Monitoring Screen from the popup menu that appears by right-clicking the task tray.

Screen Configuration

F0601.ai

Network Monitoring Screen

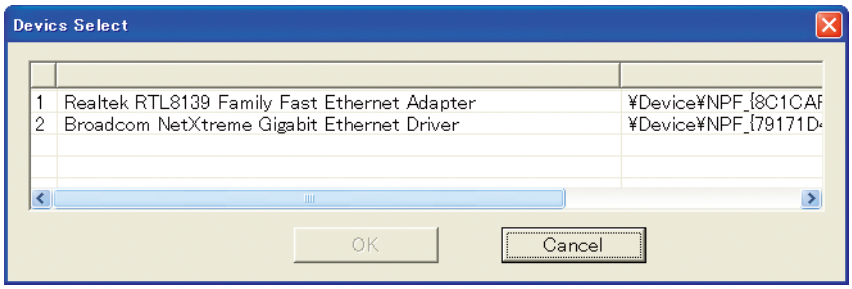
Display Item	Description
Time	Displays the time when a message is generated.
Source	Displays the sender IP address.
Dest.	Displays the recipient IP address.
Prot	Displays the communication type. If a message thus generated cannot determine which types it belongs to, the number of message characters is displayed instead. Type: TCP/UDP/ICMP/ARP
Packet	The following shows the maximum number of characters depending on message types, from the beginning of message contents: TCP (72 characters): If the number of data characters exceeds the limit, "..." is represented for the missing part. UDP (80 characters): If the number of data characters exceeds the limit, "..." is represented for the missing part. ICMP (3 characters): Displays send data length. ARP (51 characters): Displays "Request who-has" (sender IP address); "tell" (recipient IP address). Other (20 characters): Displays the number of message characters.

Functions

- Monitoring the network status of Ethernet analyzer bus.

Starting Monitoring of Network Status

Select the Start command in the System menu to display the Select Device dialog box.



F0602.ai

Select Device Dialog Box

The Select Device dialog box displays a list of devices on the network on which the PC is running. Select a device and then click the OK button to start monitoring.

Note: If the auto saving of files is not set, the message “Monitoring buffer is full. Monitoring has stopped.” appears when the monitoring data exceeds 1 MB. The corresponding data is not saved.

Stopping Monitoring of Network Status

Select the Stop command in the System menu to stop network monitoring.

Note: If the automatic saving of files is not set, the monitoring data is not saved even if monitoring is stopped. Save the data if necessary.

Saving Network Status (Manual)

Select the Save command in the System menu to save the network status. This operation is not possible while network status monitoring is taking place. The data (up to 1 MB) currently displayed in the list is saved to a file. The extension name of the file is “.nmd.” Set whether or not to automatically save the network status from the Configuration screen.

Displaying Saved Network Status

Select the Open command in the System menu to display a saved network status. This operation is not possible while network status monitoring is taking place.

Configuring Network Monitoring Screen

Select the Configuration command in the System menu to display the Configuration screen.

Configuration Screen

This screen is for configuring the Network Monitoring screen.

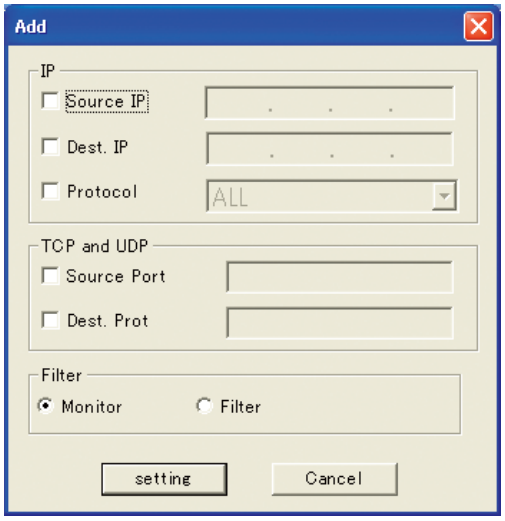
F0603.ai

Configuration Screen

Display Item	Description
Filter	The setting to select whether or not to use a filter for display when displaying electronic messages on the Network Monitoring screen. If NO is selected, the Filter List and related items (Add, Delete, and Edit) are unavailable. Options: YES/NO
Filter List	Displays the following items. Sender IP Address, Recipient IP Address, Protocol, Sender Port Number, Recipient Port Number, and Filter Rule
Add Button	Adds a new item to the filter. The Add dialog box is displayed. This operation cannot be performed if No is selected for Filter.
Del Button	Deletes a filter item. This operation cannot be performed if No is selected for Filter or no item is selected in the Filter List.
Edit Button	Edits the filter. The Edit dialog box is displayed. This operation cannot be performed if No is selected for Filter or no item is selected in the Filter List.
Auto Preserve	The setting to select whether to automatically save electronic messages displayed in the Network Monitoring screen. If NO is selected, the input box and Browse button for the output destination cannot be used. Options: YES/NO
Auto save Folder	Configures the directory for auto save. The Browse button can also be used to select a directory.

Add Dialog Box

This dialog box is for adding a new filter item.



F0604.ai

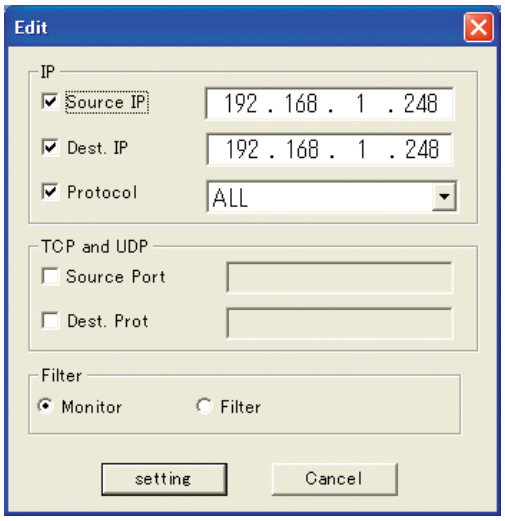
Add Dialog Box

Display Item	Description
IP	Configures the IP addresses and protocol to use for the filter.
Source IP	The sender IP address to use for the filter.
Dest. IP	The recipient IP address to use for the filter.
Protocol	The protocol to use for the filter. Options: TCP/UDP/CMP/ARP/Other
TCP and UDP	The port number to use for the filter with TCP and UDP.
Source Port	The sender port number to use for the filter.
Dest. Port	The recipient port number to use for the filter.
Filter	Sets whether to monitor or reject (not monitor) communication applicable to the set filter. Options: Monitor/Reject

Note: Communication set to be rejected in Filter Rule is masked, and all the other communication set to be monitored is displayed.

Edit Dialog Box

This dialog box is for editing filter items. The details are the same as those of the Add dialog box.



F0605.ai

Edit Dialog Box

7. Alarm Screen

If an alarm or error is generated on PCAS, a popup window is displayed to notify you of the alarm. In addition to this window, there are also screens for displaying the current alarm status and alarm history of the PCAS.

There are the following four types of screen.

- Alarm Generated dialog box
- Alarm Status screen
- Alarm History screen
- Alarm Detailed Explanation screen

Alarm List

The alarms of PCAS are as follows.

Alarm numbers 400 to 499: Error (level 1 alarm)

Alarm numbers 500 to 599: Alarm (level 2 alarm)

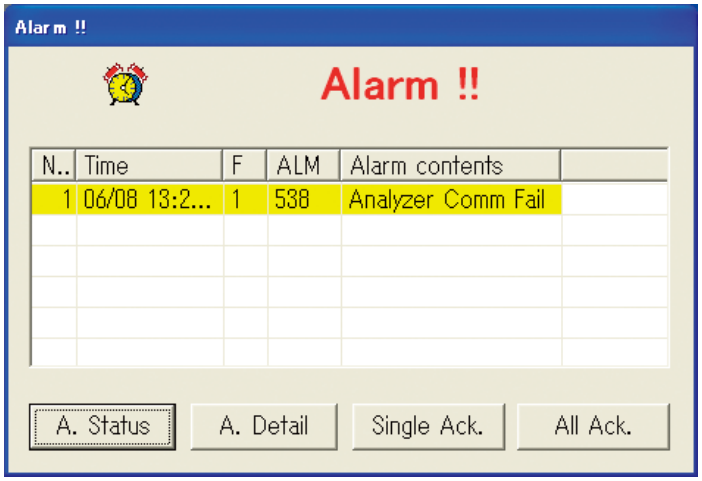
Number	Name	Description	Level	DATA1	DATA2
421	Disk Full Error	The available disk space has become less than the server disk full error capacity.	1	None	None
521	Disk Full Warning	The available disk space has become less than the server disk full warning capacity.	2	None	None
538	Analyzer Communication Disconnected	Communication with the analyzer is no longer possible.	2	Analyzer ID	*1 Error type
539	Communication with Server Disconnected	Communication with the secondary server is no longer possible.	2	Secondary server ID	None
550	FTP Forwarding of Process Failed	FTP file forwarding of process status failed.	2	Analyzer ID	*2 File code
551	Time and Date Setting Failed	Setting the time and date of the analyzers failed.	2	Analyzer ID	None
552	Secondary Server Type Duplicate Alarm	The primary server and the secondary server are set to the same type.	2	Secondary server ID	*3 Server type
553	Secondary Server Duplicate ID alarm	The primary server and the secondary server are set to the same ID number.	2	Secondary server ID	None
554	Conffict of Analyzer ID	Analyzer ID on the database does not match the ID registered on the PCAS.	2	Analyzer ID	Registered ID
591	Alarm History Reset Message	The alarm history was reset.	2	Analyzer ID	None

*1 Error type = 0: Ping error, 1: TCP error, 2: Application error (TCP1), 3: Application error (TCP2), 4: Application error (TCP3)
*2 File code = 1: Detailed chromatograph 1, 2: Detailed chromatograph 2, 3: Temperature, 4: Pressure 1, 5: Pressure 2, 6: Analysis results, 7: Initial database, 99: Other
*3 Server type = 0: Primary, 1: Secondary

7.1 Alarm Generated Dialog Box

If an alarm or error is generated on PCAS, the Alarm Generated dialog box is displayed on top of other windows.

Screen Configuration



F0701.ai

Figure 7.1 Example of Alarm Generated Dialog Box

Table 7.2 Alarm Generated Dialog Box Display Items

Display Item	Description
Time	The time when the alarm was generated.
F	The status of the alarm. 1: Generated
ALM	The alarm number.
Alarm contents	Displays an explanation of the alarm.

Buttons

Alarm Status Button: This displays the Alarm Status screen. The Alarm Generated dialog box remains displayed when you display the Alarm Status screen.

Alarm Details Button: This displays the Alarm Detailed Explanation screen for the alarm highlighted in yellow. The alarm for which details are displayed is deleted from the Alarm Generated dialog box.

Confirm Separately Button: Deletes the alarm highlighted in yellow from the Alarm Generated dialog box. The dialog box closes when there are no alarms to display.

Confirm All Button: Confirms all alarms. The Alarm Generated dialog box closes if this button is clicked.

Note: Confirming an alarm is an operation that deletes the alarm display from the Alarm Generated dialog box. It does not cancel the alarm status of PCAS. The condition that caused the alarm needs to be resolved in order to cancel the alarm status.

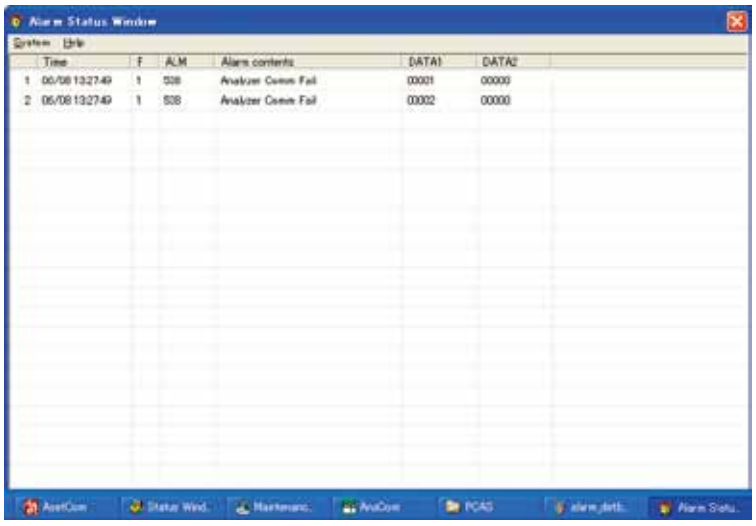
7.2 Alarm Status Screen

This screen is for displaying the current alarm status of PCAS. Alarms are displayed in order from the latest. Up to 168 alarms can be displayed.

Display Method

- Select Alarm Status Screen in the Screen menu of the Status screen or click
- Select Alarm Status Screen in the Screen menu of the Maintenance screen or click .
- Click Alarm Status Screen from the popup menu that appears by right-clicking the task tray.
- Click the Alarm Status button in the Alarm Generated dialog box.

Screen Configuration


Alarm Status Window
System Help
Time F ALM Alarm contents DATA1 DATA2
1 06/08 13:27:49 1 528 Analyzer Comm Fail 00001 00000
2 06/08 13:27:49 1 528 Analyzer Comm Fail 00002 00000

F0702.ai

Figure 7.2 Example of Alarm Status Screen

Table 7.3 Alarm Status Screen Display Items

Display Item	Description
Time	The time the alarm was generated.
F	The status of the alarm. 1: Generated
ALM	The alarm number.
Alarm contents	Displays an explanation of the alarm.
DATA1/DATA2	Displays alarm information 1 and alarm information 2.

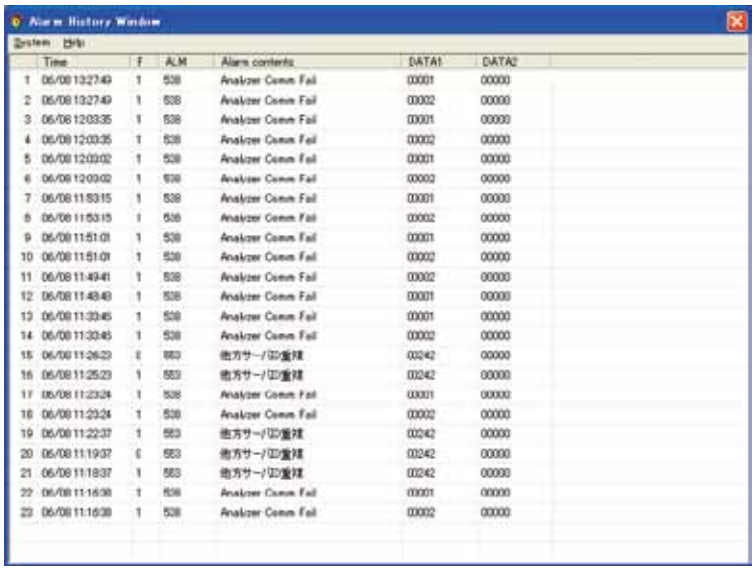
7.3 Alarm History Screen

This screen is for displaying the alarm history for alarms of PCAS that were generated in the past. Alarms are displayed in order from the latest. Up to 300 alarms can be displayed.

Display Method

Click Alarm History in the System menu of the Alarm Status screen.

Screen Configuration



F0703.ai

Figure 7.3 Example of Alarm History Screen

Table 7.4 Alarm History Screen Display Items

Display Item	Description
Time	The time the alarm was generated.
F	The status of the alarm. 0: Canceled, 1: Generated
ALM	The alarm number.
Alarm contents	Displays an explanation of the alarm.
DATA1/DATA2	Displays alarm information 1 and alarm information 2.

7.4 Alarm Detailed Explanation Screen

This screen is for displaying detailed explanations on alarms by alarm number.

Display Method

- Click the Alarm Details button in the Alarm Generated dialog box. (Displays a detailed explanation on the alarm highlighted in yellow.)
- Click Alarm Details in the System menu of the Alarm Status screen, enter an alarm number, and then click the OK button.
- Click Alarm Details in the System menu of the Alarm History screen, enter an alarm number, and then click the OK button.

Screen Configuration

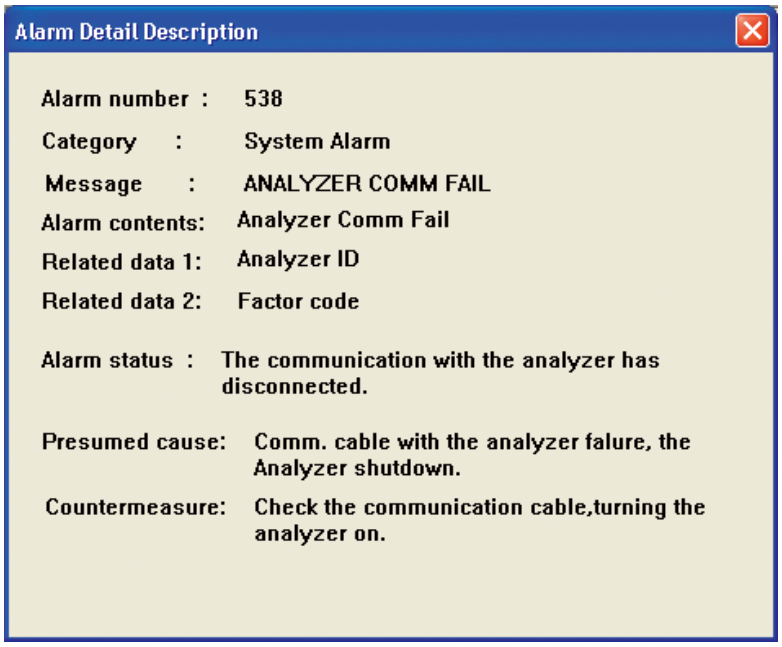

Alarm Detail Description
Alarm number : 538
Category : System Alarm
Message : ANALYZER COMM FAIL
Alarm contents: Analyzer Comm Fail
Related data 1: Analyzer ID
Related data 2: Factor code
Alarm status : The communication with the analyzer has disconnected.
Presumed cause: Comm. cable with the analyzer falure, the Analyzer shutdown.
Countermeasure: Check the communication cable,turning the analyzer on.
F0704.ai

Figure 7.4 Example of Alarm Detailed Explanation Screen

Table 7.5 Alarm Detailed Explanation Display Items

Display Item	Description
Alarm Number	The alarm number.
Category	The alarm category.
Message	The alarm number.
Alarm contents	The alarm title.
Related Data 1 Related Data 2	The explanations of the meanings of alarm information 1 and alarm information 2.
Alarm Status	The detailed explanation of the alarm status.
Presumed Cause	The suspected cause of the alarm generated.
Countermeasure	The measure to carry out to cancel the alarm.

8. PCAS for ARCNET

The New ARCNET-based bus system enables connection between an ARCNET system and an Ethernet system. This realizes addition of Ethernet analyzers to existing ARCNET systems.

8.1 System Configuration

PCAS-G software which is ARCNET supported version must be installed to corresponde with the ARCNET system.

A typical network configuration of analyzer bus is shown in Figure 8.1.

The network consists of analyzers (Gas chromatograph etc.) and "Analyzer bus systems for ARCNET". This "Analyzer bus systems for ARCNET" consist of “Gateway unit”,”analyzer server” and “ARCNET / Ethernet Converter”.

Each software (PCAS, ASET) for “Analyzer server” and “Analyzer Server Engineering Terminal” should be used “/ARC: ARCNET supported version”.

The communication to the analyzer connected to Ethernet is also enabled.

- "Analyzer bus systems for ARCNET" should be used so that DCS communicates with analyzer connected to ARCNET.
- Redundancy for ARCNET is enabled. Redundancy for Ethernet can be done by using double "Analyzer bus systems for ARCNET".
- One "Analyzer bus systems for ARCNET" can communicate with up to 30 sets of analyzers connected to ARCNET. In case of communicating with more than 31 sets, plural number of "Analyzer bus systems for ARCNET" should be used.

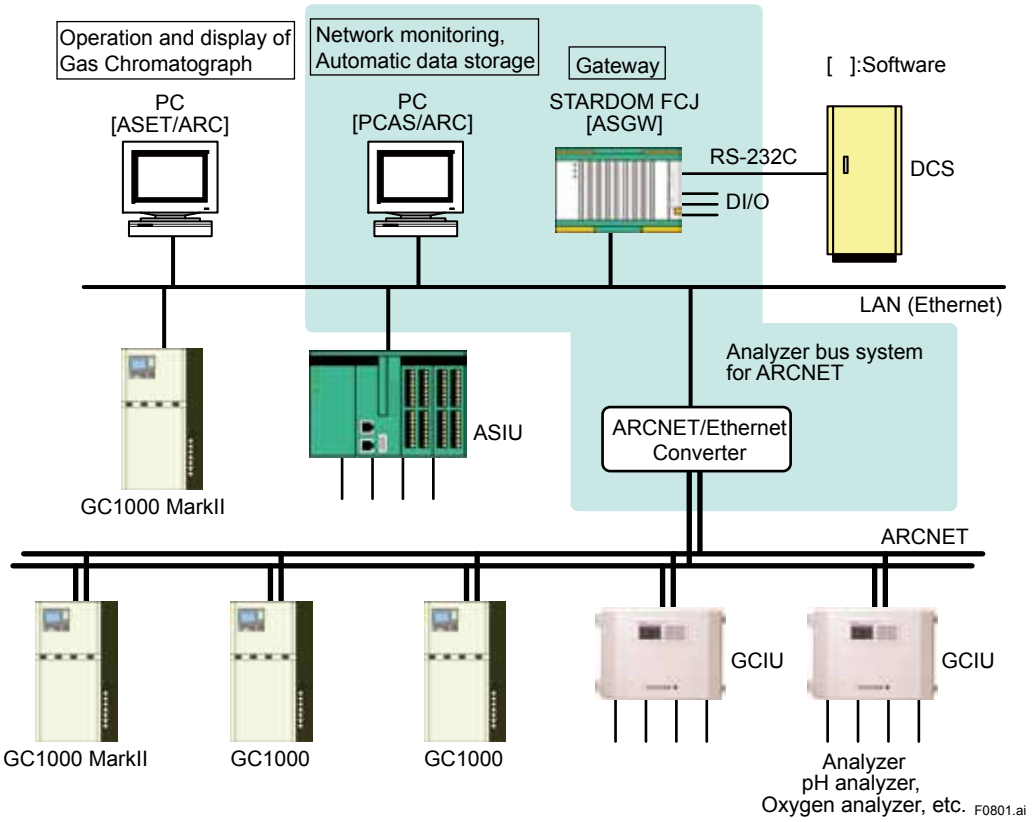


Figure 8.1 Typical System configuration

8.2 Installing PCAS for ARCNET

8.2.1 Installing “Microsoft Visual C++ 2008 Redistributable Package”

Install the “Microsoft Visual C++ 2008 Redistributable Package” Before installing PCAS-G.

This package is also included in the ASET Install Disk. If you already installed the Package into the computer while the ASET installing, you can skip the procedure.

■ Installation Procedure

(1) Insert the install disc into the CD drive. The following dialog box appears Click “Open folder to view files”.

(2) Select the folder “Microsoft Visual C++ 2008 Redistributable Package (x86)”->” for_English”

(3) Click “vcredist_x86.exe”, then the installer will start.

(4) Install the software according to the screen.

8.2.2 Installing PCAS-G

Install the PCAS-G according to “2.1.1 PC Analyzer Setup”.

8.2.3 Setting PCAS

(1) Set the following information on the Builder window in the PCAS.

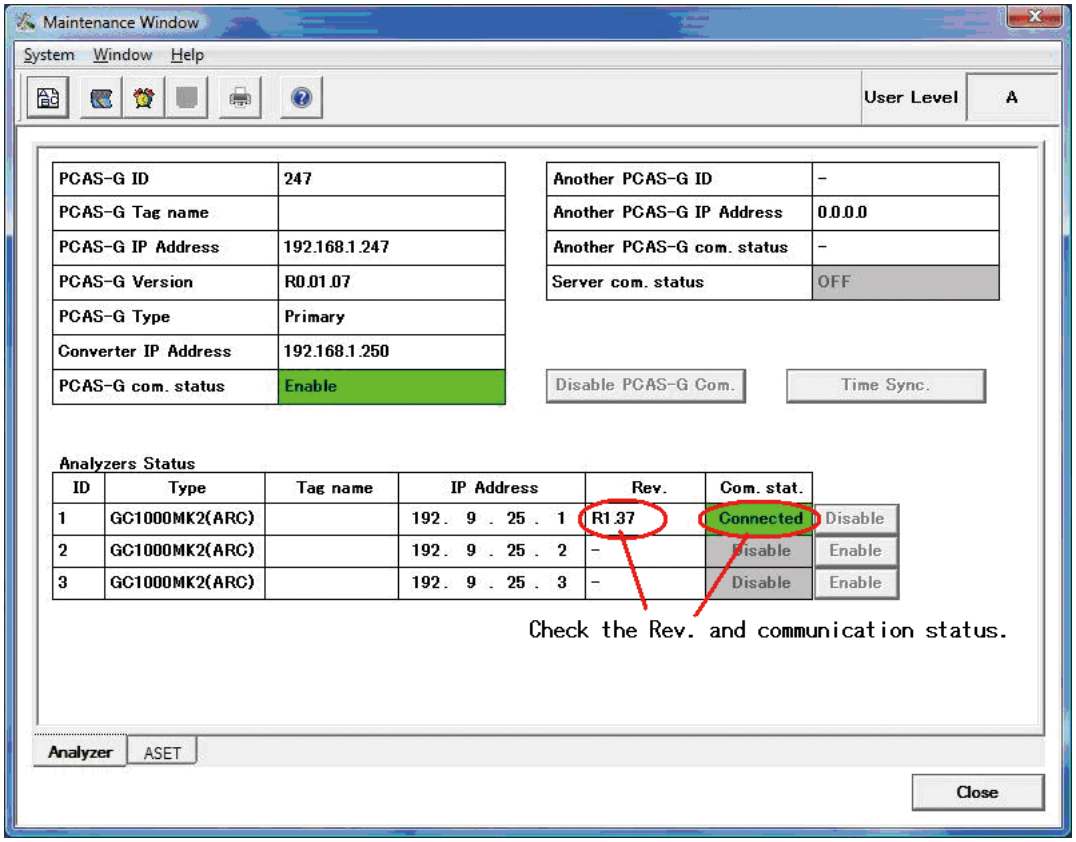
	PC#1	PC#2
PCAS-G ID	247	246
PCAS-G IP Address	192.168.1.247	192.168.1.246
Convertor IP Address	192.168.1.250	192.168.1.249
PCAS-G type	Primary	Secondary
Another PCAS-G IP Address	192.168.1.246	192.168.1.247
Modbus Scaling	Real	Real

(2) Set the Analyzer ID, IP Address, Analyzer type

Register the same analyzers setting on the PCAS-G.
If needed, set the Analyzer tag names.

Analyzer ID	IP Address	Analyzer type	Analyzer tag name
1	192.9.25.1	GC1000MK2(ARC)	
2	192.9.25.2	GC1000MK2(ARC)	
3	192.9.25.3	GC1000MK2(ARC)	

(3) Restart the PC, and then check the communication status.


Maintenance Window
System Window Help
User Level A
PCAS-G ID 247
PCAS-G Tag name
PCAS-G IP Address 192.168.1.247
PCAS-G Version R0.01.07
PCAS-G Type Primary
Converter IP Address 192.168.1.250
PCAS-G com. status Enable
Another PCAS-G ID -
Another PCAS-G IP Address 0.0.0.0
Another PCAS-G com. status -
Server com. status OFF
Disable PCAS-G Com.
Time Sync.
Analyzers Status
ID Type Tag name IP Address Rev. Com. stat.
1 GC1000MK2(ARC) 192. 9 . 25 . 1 R1.37 Connected Disable
2 GC1000MK2(ARC) 192. 9 . 25 . 2 - Disable Enable
3 GC1000MK2(ARC) 192. 9 . 25 . 3 - Disable Enable
Check the Rev. and communication status.
Analyzer ASET
Close

If “Com. Stat.” is “Connected”, the PCAS communication is enabled.
If “Rev.” is displayed, the TFTP communication is enabled.

Revision Information

- Title : PCAS PC Analyzer Server Software
- Manual No. : IM 11B06B01-01E

Oct. 2006/1st Edition
Newly published

Mar. 2009/2nd Edition
Addition for Windows Vista (Section 2.1)

Nov. 2010/3rd Edition
Addition of “the PCAS for ARCNET (/ARC)” (P.1-2, P.2-1, Chapter 8)
Addition of “Disabling UAC” (Section 2.1.1)
Addition of “Getting the redundant communication status between PCAS and other analyzers” (Section 2.2)
Rewriting of “Typical System Configuration” in page 1-1

Jun. 2011/4th Edition
Added explanation and figure, etc. in Chapter 8.
Revised “2.1.1 Installation of PC Analyzer Server”.

Nov. 2011/5th Edition
Addition of “GC8000”.
Revised for “Windows 7”.

May 2012/6th Edition
Addition of PC Configuration for Power Management. (Page 2-10)